



The City of Grand Prairie, Texas Disaster Debris Management Plan

March 2023



City of Grand Prairie, Texas Disaster Debris Management Plan

Table of Contents

Table of Contents

List of Tables

List of Figures

ACRONYMS AND DEFINITIONS..... 1-1

Section 1 INTRODUCTION 1-1

| | | |
|-------|--------------------------------------|------|
| 1.1 | Purpose of the Plan | 1-1 |
| 1.2 | Debris Management Overview | 1-1 |
| 1.3 | Incidents and Assumptions | 1-2 |
| 1.3.1 | Incident Description..... | 1-3 |
| 1.4 | Debris Volume Estimate..... | 1-5 |
| 1.4.1 | Debris Estimate - Scenario 1 | 1-5 |
| 1.4.2 | Debris Estimate – Scenario 2..... | 1-7 |
| 1.4.3 | Debris Estimate – Scenario 3..... | 1-9 |
| 1.5 | Local Resource Needs Assessment..... | 1-9 |
| 1.6 | Authority..... | 1-10 |
| 1.7 | References..... | 1-11 |

Section 2 ROLES AND RESPONSIBILITIES 2-1

| | | |
|--------|-----------------------------------------------------------------------------------------|-----|
| 2.1 | Administration and Logistics..... | 2-1 |
| 2.2 | Lead Departments/Divisions | 2-1 |
| 2.3 | Lead Offices and Departments | 2-3 |
| 2.3.1 | City Manager | 2-3 |
| 2.3.2 | Solid Waste Department and the Transportation and Mobility Services Department | 2-3 |
| 2.4 | Interdepartmental Coordination..... | 2-4 |
| 2.4.1 | Mayor and City Council | 2-4 |
| 2.4.2 | City Attorney | 2-4 |
| 2.4.3 | City Secretary | 2-5 |
| 2.4.4 | Communications and Marketing..... | 2-5 |
| 2.4.5 | Economic Development..... | 2-5 |
| 2.4.6 | Emergency Management | 2-5 |
| 2.4.7 | Engineering Services | 2-6 |
| 2.4.8 | Finance..... | 2-6 |
| 2.4.9 | Fire | 2-7 |
| 2.4.10 | Human Resources | 2-7 |
| 2.4.11 | Management Services Department | 2-7 |

Section 1

| | | |
|--------|-------------------------------------------------------------------------------------------------------------------------|------|
| 2.4.12 | Parks, Arts, and Recreation | 2-7 |
| 2.4.13 | Planning and Development..... | 2-7 |
| 2.4.14 | Police Department | 2-7 |
| 2.4.15 | Public Health and Environmental Quality | 2-8 |
| 2.4.16 | Utilities | 2-8 |
| 2.5 | County Agencies and Regional Resources | 2-11 |
| 2.5.1 | Dallas County Health and Human Services and Tarrant County Public Health | 2-11 |
| 2.5.2 | Dallas County Department of Homeland Security and Emergency Management/Tarrant County Office of Emergency Management | 2-11 |
| 2.5.3 | Dallas/Tarrant County Office of the Medical Examiner/Ellis County Justice of the Peace | 2-11 |
| 2.5.4 | Public Works Emergency Response Team (PWERT)..... | 2-11 |
| 2.6 | State Agencies | 2-12 |
| 2.6.1 | Texas Department of Transportation (TxDOT)..... | 2-12 |
| 2.6.2 | Texas Commission on Environmental Quality (TCEQ)..... | 2-12 |
| 2.6.3 | Texas Division of Emergency Management (TDEM)..... | 2-12 |
| 2.6.4 | Texas General Land Office (GLO)..... | 2-13 |
| 2.6.5 | Texas Historical Commission (THC) | 2-13 |
| 2.7 | Federal Agencies | 2-13 |
| 2.7.1 | Federal Emergency Management Agency | 2-13 |
| 2.7.2 | Federal Highway Administration | 2-14 |
| 2.7.3 | Natural Resources Conservation Service..... | 2-14 |
| 2.7.4 | Office of Inspector General (OIG)..... | 2-14 |
| 2.7.5 | U.S. Army Corps of Engineers (USACE) | 2-14 |
| 2.8 | Contractors..... | 2-15 |
| 2.8.1 | Republic Waste Services, Inc. | 2-15 |
| 2.8.2 | Debris Haulers | 2-15 |
| 2.8.3 | Debris Monitors | 2-16 |

Section 3 DEBRIS COLLECTION AND REMOVAL PLAN..... 3-1

| | | |
|-----|---------------------------------------------------------|------|
| 3.1 | Normal Operations..... | 3-1 |
| | Normal Operations Checklist | 3-2 |
| 3.2 | Pre-Event Preparation | 3-3 |
| | Pre-Event Checklist | 3-3 |
| | Public Information Pre-Event | 3-4 |
| 3.3 | Post-Event Response | 3-5 |
| | Emergency Road Clearance Priorities | 3-5 |
| | Post-Event Response Checklist | 3-6 |
| | Public Information Post Event..... | 3-13 |
| 3.4 | Post-Event Recovery | 3-13 |
| 3.5 | Post-Event Recovery Checklist: 2 Days – 2 Weeks | 3-13 |
| 3.6 | Post-Event Recovery Checklist: 2 Weeks – 1 Month..... | 3-18 |
| | Public Information Post Event Recovery | 3-19 |
| 3.7 | Post-Event Recovery Checklist: 1 Month – 3 Months | 3-20 |

3.8 Recovery Checklist: 3 Months – Project Completion 3-21

**Section 4 ENVIRONMENTAL CONSIDERATIONS AND OTHER
REGULATORY REQUIREMENTS 4-1**

4.1 Federal Regulations and Guidance 4-1

4.2 State of Texas Regulatory and Technical Assistance 4-3

4.3 Other Relevant Regulations 4-4

Section 5 Plan Maintenance 5-1

5.1 Plan Maintenance..... 5-1

5.2 Plan Review and Approval 5-1

Section 1

List of Tables

| | |
|-------------------------------------------------------------|------|
| Table 1-1 Enhance Fujita Scale..... | 1-4 |
| Table 1-2: Potential Disaster Incidents..... | 1-5 |
| Table 1-3: Estimated CY of Debris from an EF3 Tornado..... | 1-7 |
| Table 1-4. Storm Category Factor..... | 1-8 |
| Table 1-5: Vegetative Cover Factor..... | 1-8 |
| Table 1-6: Commercial Multiplier Factor..... | 1-8 |
| Table 1-7: Precipitation Multiplier Factor..... | 1-9 |
| Table 1-8: Scenario 3 - Debris Forecast Analysis..... | 1-9 |
| Table 1 9: Debris Resource Requirements..... | 1-10 |
| Table 2-1 City Departments’ Roles and Responsibilities..... | 2-8 |
| Table 2-2 County Department Roles and Responsibilities..... | 2-12 |
| Table 2-3 State Agency Roles and Responsibilities..... | 2-13 |
| Table 2-4 Federal Agencies Roles and Responsibilities..... | 2-15 |
| Table 3-1 Recyclable Materials and End Users..... | 3-9 |
| Table 3-2 Potential Final Disposal Landfills..... | 3-21 |

List of Figures

| | |
|--------------------------------------------|------|
| Figure 2-1 City Organizational Chart..... | 2-2 |
| Figure 3-1 Disaster Recovery Timeline..... | 3-13 |

List of Appendices

| |
|----------------------------------------------------------------|
| Appendix A: Monitoring Firm and Debris Removal Contractors |
| Appendix B: Debris Management Site Report |
| Appendix C: Field Documents |
| Appendix D: Hazardous Stump Extraction and Removal Eligibility |
| Appendix E: Sample Public Information Messages |
| Appendix F: Sample Right-of-Entry Agreement |
| Appendix G: Debris Management Site Memorandum of Understanding |
| Appendix H: Zone Maps |
| Appendix I: Open Landfill Sites |
| Appendix J: Health and Safety Strategy |
| Appendix K: Debris Contracting Guidance |
| Appendix L: City Procurement Procedures |
| Appendix M: Road Inventory |
| Appendix N: Municipal Road Maintenance Agreement |
| Appendix O: City Equipment |
| Appendix P: Debris Removal Contractor Solicitation |
| Appendix Q: Contracts |
| Appendix R: Debris Management Checklists |
| Appendix S: Priority Facilities List |

ACRONYMS AND DEFINITIONS

| | |
|-----------------------|-----------------------------------------------------------------------|
| 44 CFR | Title 44 of the Code of Federal Regulations |
| BOAT | Building Officials Association of Texas |
| CAA | Clean Air Act |
| C&D Debris | Construction and Demolition Debris |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| City | City of Grand Prairie |
| CWA | Clean Water Act |
| CY | Cubic Yards |
| DMOC | Debris Management Operations Center |
| DMS | Debris Management Site |
| DPS | Department of Public Safety |
| DRRA | Disaster Recovery Reform Act of 2018 |
| DSG | Disaster Specific Guidance |
| DSHS | Texas Department of State Health Services |
| EF | Enhanced Fujita |
| EOC | Emergency Operations Center |
| EPA | Environmental Protection Agency |
| ER Program | Emergency Relief Program |
| E-Waste | Electronic Waste |
| EWP | Emergency Watershed Protection |
| FCO | Federal Coordinating Officer |
| FEMA | Federal Emergency Management Agency |
| FHWA-ER | Federal Highway Administration-Emergency Relief |
| GIS | Geographic Information Systems |
| GPS | Global Positioning System |
| HHA | Hold Harmless Agreement |
| HHSC | Texas Health and Human Services Commission |
| HHW | Household Hazardous Waste |
| HMGP | Hazard Mitigation Grant Program |

| | |
|---------------------|-----------------------------------------------------------------|
| HUD | Housing and Urban Development |
| MOU | Memorandum of Understanding |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emission Standard for Hazardous Air Pollutant |
| NHPA | National Historic Preservation Act |
| NRCS | National Resource Conservation Service |
| NOAA | National Oceanic and Atmospheric Agency |
| OSHA | Occupational Safety and Health Administration |
| PA | Public Assistance |
| PDMG | Program Delivery Manager |
| PPE | Personal Protective Equipment |
| PIO | Public Information Officer |
| Plan | Disaster Debris Management Plan |
| PW | Project Worksheets |
| PWERT | Public Works Emergency Response Team |
| QA/QC | Quality Assurance/Quality Control |
| RCRA | Resource Conservation and Recovery Act |
| RFB | Request for Bids |
| RFP | Request for Proposals |
| ROE | Right-of-Entry |
| ROW | Right-of-Way |
| Stafford Act | Robert T. Stafford Disaster Relief and Emergency Assistance Act |
| State | The State of Texas |
| TCEQ | Texas Commission on Environmental Quality |
| THC | Texas Historical Commission |
| TxDOT | Texas Department of Transportation |
| USACE | United States Army Corps of Engineers |

Applicant – State agency, local government or eligible private nonprofit organization that intends on applying for Federal Emergency Management Agency (FEMA) Public Assistance (PA) grants.

Code of Federal Regulations: Title 44 – Emergency Management and Assistance – The Code of Federal Regulations – Title 44 Emergency Management and Assistance (44 CFR) provide procedural requirements for the PA Program operations. These regulations are designed to implement a statute based upon FEMA’s interpretation of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). They govern the PA Program and outline program procedures, eligibility, and funding.

Construction and Demolition Debris – FEMA Publication 104-009-2 defines construction and demolition (C&D) debris as damaged components of buildings and structures such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor coverings, window coverings, plastic pipe, concrete, fully cured asphalt, heating, ventilation and air conditioning systems and their components, light fixtures, small consumer appliances, equipment, furnishings and fixtures. Current eligibility criteria include:

- Debris must be located within a designated disaster area and be removed from an eligible applicant’s improved property or right-of-way;
- Debris removal must be the legal responsibility of the applicant; and
- Debris must be a result of the major disaster event.

Debris Removal Contractor – The debris removal contractor is contracted by the City of Grand Prairie (City) to remove and dispose of debris that is a result of a severe debris-generating event.

Disaster Specific Guidance – Disaster Specific Guidance (DSG) is a policy statement issued in response to a specific post-event situation or need in a state or region. Each DSG is issued a number and is generally referred to along with their numerical identification.

FEMA Publication FP 104-009-2 – Public Assistance Program and Policy Guide – Combines all Public Assistance policy into a single volume and provides an overview of the PA Program implementation process with links to other publications and documents that provide additional process details. It provides a general overview of the FEMA PA Program protocol immediately following a disaster. The PA Program provides the basis for the federal/local cost sharing program. This document specifically describes the entities eligible for reimbursement under the PA Program, the documentation necessary to ensure reimbursement and any special considerations that local governments should be aware of to maximize eligible activities.

Force Account Labor – The use of the City’s own personnel and equipment. Below force account labor information from Chapter 6, Section II of the PAPPG.

- For Permanent Work, both straight-time and overtime labor costs are eligible for both budgeted and unbudgeted employee hours. For Emergency Work, only overtime labor is eligible for budgeted employee hours. For unbudgeted employees performing Emergency Work, both straight-time and overtime labor are eligible. Overtime is time worked beyond an employee’s scheduled working hours as defined by the Applicant’s pre-disaster pay policy.
 - Under the Alternative Procedures authorized by Section 428 of the Stafford Act, straight-time labor costs are eligible for budgeted employees conducting eligible debris removal (Category A) activities.
 - The Applicant may assign an employee to perform work that is not part of the employee’s normal job. For example, a police officer may clear debris. FEMA provides PA funding based on the reassigned employee’s normal pay rate, not the pay level appropriate to the work, because the Applicant’s incurred cost is the employee’s normal pay rate.
 - Straight-time of a permanent employee funded from an external source (such as a grant from a federal agency or statutorily dedicated funds) is eligible if the employee is reassigned to perform eligible Emergency Work that the external source does not fund. FEMA must confirm that no duplication of funding exists prior to approval.
-

- The Applicant may need to temporarily replace an employee who is responding to the incident. Overtime costs for the backfill employee are eligible even if the backfill employee is not performing eligible work as long as the employee that he/she is replacing is performing eligible Emergency Work.
- Straight-time of essential employees called back to work from a budget-related furlough due to the declared incident is eligible if the costs are not budgeted.
- Second-level supervisors and above (e.g., commissioners, mayors, department directors, police and fire chiefs) are usually exempt employees. Therefore, overtime costs related to these types of employees are ineligible, unless the Applicant:
 - Demonstrates that the employee was directly involved with a specific project;
 - Normally charges that individual's time to specific projects regardless of Federal funding; and
 - Incurs overtime costs for the employee in accordance with a labor policy that meets the criteria in Chapter 6:II.A. Labor Policies.
- Extraordinary costs (such as call-back pay, night-time and weekend differential pay, and hazardous duty pay) for essential employees who are called back to duty during administrative leave to perform eligible Emergency Work are eligible if costs are paid in accordance with a labor policy that meets the criteria above.

Administrative leave or similar labor costs incurred for employees sent home or told not to report due to emergency conditions are ineligible.

Hazardous Limb– A limb is hazardous if it poses a significant threat to the public. The current eligibility requirements for hazardous limbs according to FEMA Publication FP 104-009-2 are:

- The limb is greater than two inches in diameter;
- The limb is still hanging in a tree and threatening a public-use area; and
- The limb is located on improved public property.

Hazardous Stump – A stump is defined as hazardous and eligible for reimbursement if all of the following criteria are met:

- The stump has 50 percent or more of the root-ball exposed;
- The stump is greater than 2 feet in diameter when measured 2 feet from the ground;
- The stump is located on a public right-of-way; and
- The stump poses an immediate threat to public health and safety.

Hazardous Tree – A tree is considered hazardous when the tree's present state is caused by a disaster, the tree poses a significant threat to the public and the tree is six inches in diameter or greater, measured 4.5 feet from the ground. The current eligibility requirements for leaning trees according to FEMA Publication 104-009-2 are:

- The tree has a broken canopy;
 - The tree has a split trunk;
 - The tree is leaning at an angle greater than 30 degrees.
-

Household Hazardous Waste – The Resource Conservation and Recovery Act defines hazardous wastes as materials that are ignitable, reactive, toxic or corrosive. Examples of household hazardous waste (HHW) include items such as paints, cleaners, pesticides, etc. Due to the nature of hazardous waste certified technicians must be used to handle, capture, recycle, reuse and dispose of hazardous waste. The eligibility criteria for HHW are as follows:

- HHW must be located within a designated disaster area and be removed from an eligible applicant's improved property or right-of-way;
- HHW removal must be the legal responsibility of the applicant; and
- HHW must be a result of the major disaster event.

Monitoring Firm – The monitoring firm is an organization under contract with the City to monitor debris removal operations. The monitoring firm ensures the debris removal contractor is working within the scope-of-work contracted by the City and documents debris removal operations.

Robert T. Stafford Disaster Relief and Emergency Assistance Act – Provides the authorization of the PA Program. The fundamental provisions of this act are as follows:

- Assigns FEMA the authority to administer federal disaster assistance;
- Defines the extent of coverage and eligibility criteria of the major disaster assistance programs;
- Authorizes grants to the states; and
- Defines the minimum federal cost-sharing levels.

Sandy Recovery Improvement Act of 2013 – The law authorizes changes to the way FEMA may deliver federal disaster assistance to survivors. Key provisions of the act are as follows:

- Provides substantially greater flexibility in use of federal funds and less administration burden if applicants accept grants based on fixed capped estimates, which may be provided by applicants' licensed engineer and validated by independent expert panel.
- Offers a package of cost share adjustments, reimbursement for force account, and retention of program from recycling to speed debris removal and encourage pre-disaster debris planning.
- Allows Public Assistance applicants for all disasters declared on or after October 30, 2012 an option to request binding arbitration for certain projects with an amount in dispute of over \$1 million after first appeal, instead of pursuing a second appeal under FEMA's Public Assistance Program

Vegetative Debris – As outlined in FEMA Publication 104-009-2, vegetative debris consists of whole trees, tree stumps, tree branches, tree trunks and other leafy material. Vegetative debris will largely consist of mounds of tree limbs and branches piled along the public right-of-way by residents and volunteers. Current eligibility criteria include:

- Debris must be located within a designated disaster area and be removed from an eligible applicant's improved property or right-of-way;
 - Debris removal must be the legal responsibility of the applicant; and
 - Debris must be a result of a Presidentially declared major disaster event.
-

White Goods – As outlined in FEMA Publication 104-009-2, white goods are defined as discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers and water heaters. White goods can contain ozone-depleting refrigerants, mercury or compressor oils that the federal Clean Air Act prohibits from being released into the atmosphere. The Clean Air Act specifies that only certified technicians can extract refrigerants from white goods before they can be recycled. The eligibility criteria for white goods are as follows:

- White goods must be located within a designated disaster area and be removed from an eligible applicant's improved property or right-of-way;
 - White goods removal must be the legal responsibility of the applicant; and
 - White goods must be a result of the major disaster event.
-

Section 1 INTRODUCTION

1.1 Purpose of the Plan

The City approved the preparation of this Disaster Debris Management Plan (Plan) to better respond to subsequent emergency debris removal situations. The purpose of this Plan is to outline the components critical to the success of a debris removal operation in the City. This Plan provides key information that will help the City coordinate and effectively manage a turn-key debris removal effort if the City were affected by a major, debris-generating event. Central to the success of debris removal operations is the City's understanding of the following elements prior to a debris-generating event:

- The parties involved and their roles and responsibilities with regards to the debris removal operation;
- The rules, regulations and guidelines enacted by the Federal Emergency Management Agency (FEMA) and other agencies governing debris removal;
- The process of collecting debris; and
- The disposal of debris including where the debris will be staged for reduction and/or hauled to final disposal.

1.2 Debris Management Overview

An important consideration in disaster debris management is the population of the area to be served under the plan and factors relating to demographics that will need to be considered in developing strategies for debris removal strategies and communications. According to the U.S. Census Bureau, in July 2021, the population of the City was 197,347. 43.9% of the population speaks a language other than English at home.¹ The City will need to ensure that public information regarding set-out procedures and the safe handling of debris is accessible in multiple formats. In addition, 10.0% of the population is over the age of 65, and approximately 11.5% of the population lives in poverty.² During disasters, populations with functional and access needs and socio-economic barriers, which may include persons over the age of 65 and persons in poverty, often have less access to resources and support. The City will consider the needs of these populations in planning and in response to a debris-generating incident.

The City of Grand Prairie encompasses approximately 82 square miles and falls within 3 different counties, Dallas, Tarrant and Ellis, with extra-territorial jurisdiction in Ellis and Johnson Counties. The topography of Grand Prairie is hilly, rolling, and well-drained. The geographic location of the city makes it susceptible to a number of natural hazards that could result in large quantities of debris including tornados, severe storms, and flooding.

¹ U.S. Census Bureau, QuickFacts Grand Prairie, Texas, <https://www.census.gov/quickfacts/grandprairiecitetexas>

² Ibid

On October 20, 2019, a total of ten tornadoes were identified by Nation Weather Service Teams that impacted area across the DFW Metroplex. The strongest of the ten was an EF3 tornado that traveled 16 miles across northern Dallas County. Another in the same batch of tornadoes was an EF2 that tracked about 2.5 miles through Garland. \$400 million in property damage resulted from those tornadoes.³

On April 3, 2012, an earlier outbreak of tornadoes occurred also resulting in \$400 million in property damaged when 17 tornadoes developed from Dallas County to Hopkins County. One of the tornadoes was rated an EF3, three were rated EF2s, one was rated an EF 1, and the remaining tornadoes were rated as EF0s.⁴

These examples serve as reminders of how vulnerable the City of Grand Prairie is to devastating incidents that have the potential of causing massive destruction and a large amount of debris. Because of these vulnerabilities, it is of extreme importance to establish a working plan to quickly and effectively respond to future debris-generating events.

1.3 Incidents and Assumptions

This Plan provides a coordinated response blueprint for the City; the City's monitoring firm and the City's debris removal contractor. Several City departments have been instrumental the development of the plan and in clarifying roles and responsibilities in the event of a debris generating incident. Planning efforts have included participation in planning meeting, completion of surveys to ascertain responsibilities and to determine city resources that can be brought to bear in debris generating events, and the collection of data needed for development of the plan. City departments with a role in development of the plan include the following:

- City Attorney
- City Manager
- City Secretary
- Code Enforcement
- Communication and Marketing
- Economic Development
- Emergency Management
- Engineering Services – Floodplain Management and GIS
- Finance
- Fire
- Human Resources

³ National Oceanic and Atmospheric Administration, Storm Events Database, https://www.ncdc.noaa.gov/stormevents/listevents.jsp?eventType=%28C%29+Tornado&beginDate_mm=11&beginDate_dd=01&beginDate_yyyy=2000&endDate_mm=11&endDate_dd=30&endDate_yyyy=2022&county=DALLAS%3A113&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitButton=Search&statefips=48%2CTEXAS

⁴ Ibid

- Management Services
- Mayor and City Council
- Parks, Arts, and Recreation
- Planning and Development
- Police
- Public Health and Environmental Quality
- Solid Waste
- Transportation and Mobility Services
- Utility Services

To assist the City in expeditiously recovering from a debris-generating event, the approach of this Plan will be to outline pre-event preparations during times of normalcy, operations immediately prior to a known disaster threat, operations following the disaster event and demobilization and close-out following completion of debris removal efforts.

With regards to debris removal efforts, this Plan assumes the following:

- The City’s greatest threat of a debris-generating event is in the form of a severe weather system, such as a tornado or thunderstorm;
- The response and recovery outlined in this Plan is designed to address two types of debris-generating scenarios:
 - **Scenario 1:** Low Probability – High Consequence events
 - **Scenario 2:** High Probability – Medium Consequence events
- In the event of a debris-generating event, the City may activate one or more debris removal contractors;
- In the event of a debris-generating event, the City may activate a monitoring firm;
- If warranted, the City through the state will request federal assistance from FEMA; and
- The City will be operating under the current Public Assistance (PA) guidelines for reimbursement as described in the Stafford Act. Changes to the PA Program or published program-specific guidance may result in a revision to the debris management plan or its implementation.

1.3.1 Incident Description

The multi-hazard DMP is designed to address numerous debris-generating event scenarios. For the purposes of the DMP, two scenarios have been developed based on maximum impact, ability to respond, and frequency of event.

Scenario 1: Low Probability – High Consequence

This scenario focuses on catastrophic debris-generating events that may significantly impact the entire Dallas-Fort Worth Metroplex. In this case resources are severely strained throughout the

entire region; and a Presidential Disaster Declaration for Category A is immediate or imminent due to:

- Long-term impacts to roads, bridges and rail lines;
- Composition of debris includes vegetative and C&D debris; and
- Post-event debris estimates have the potential to exceed 100,000 cubic yards (CY).

This event is best described as a severe tornado or high-wind storm (above 111 mph). The period for debris removal and demobilization may last from three-months to one year and beyond.

The National Oceanic and Atmospheric Administration (NOAA) National Weather Service utilizes the Enhanced Fujita (EF) Scale to rate the severity of tornadoes. The table below describes the EF Scale and associated wind speed categories.

**Table 1-1:
The Enhanced Fujita Scale**

| Fujita Scale | | | Derived EF Scale | | Operational EF Scale | |
|--------------|----------------------|---------------------|------------------|---------------------|----------------------|---------------------|
| F Number | Fastest ¼ Mile (mph) | 3 Second Gust (mph) | EF Number | 3 Second Gust (mph) | EF Number | 3 Second Gust (mph) |
| 0 | 40-72 | 45-78 | 0 | 65-85 | 0 | 65-85 |
| 1 | 73-112 | 79-117 | 1 | 86-109 | 1 | 86-110 |
| 2 | 113-157 | 118-161 | 2 | 110-137 | 2 | 111-135 |
| 3 | 158-207 | 162-209 | 3 | 138-167 | 3 | 136-165 |
| 4 | 208-260 | 210-261 | 4 | 168-199 | 4 | 166-200 |
| 5 | 261-318 | 262-317 | 5 | 200-234 | 5 | Over 200 |

Scenario 2: High Probability – Medium Consequence Impact

This scenario focuses on those higher frequency debris-generating events that may impact portions of or the entire City. These events may be characterized as those that do not immediately receive a Presidential Disaster Declaration for Category A:

- Short-term impacts to roads, bridges and rail lines;
- Composition of debris is primarily vegetative with limited C&D and white goods; and
- Post-event debris estimates do not exceed 100,000 cubic yards (CY).

This event is best described as a moderate tornado or wind storm (65 - 110 mph). The period for cleanup may last from one to two months. Depending on the severity of the event, DMS locations may or may not be operational. In this case, the City may choose to rely on local contractors or force account labor.

1.4 Debris Volume Estimate

The debris volume generated by an event will depend on the type of event. Table 1-2 describes the disaster events that may affect the City. The table also illustrates the probability of the disaster event occurring, the nature of the debris generated, the debris generation potential and the widespread impact throughout the City.

Table 1-2: Potential Disaster Incidents

| Type of Event | Probability ⁵ | Nature of Debris | Debris Generation Potential ⁶ | Widespread Impact |
|----------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------|
| Tornado | High | Vegetative Construction and Demolition (C&D) Household Hazardous Waste (HHW) Limited White Goods | Medium | Low to High (Based on strength, width, and length of path) |
| Severe Storm High Winds | High | Vegetative | Medium | High |
| Flood | Medium | Vegetative Construction and Demolition (C&D) HHW | Low to Medium | Low |
| Man-Made | Low | C&D HHW | Low to Medium | Low |

For planning purposes, this Plan will be based on debris volumes generated by the most probable event to produce conditions common to Scenario 1, a severe F2 tornado. However, the guidance that follows in this Plan will apply to all debris-generating events that may affect the City.

1.4.1 Debris Estimate - Scenario 1

For purposes of generating debris estimates for the Debris Management Plan under Scenario 1, the high-volume debris incident is assumed to be a major tornado impacting the region. While the tornadoes of this magnitude are rare, they have the greatest opportunity to generate debris and affect the City and therefore will act as the basis for the high volume debris estimate.

Debris Forecast Formula

The forecasted amount of residential debris in the City is based on the following formula for a totally destroyed household as described in FEMA 329 Debris Estimating Guide⁷:

$$L' \times W' \times S \times 20\% \times VCM = \text{___ cubic yards of debris}$$

⁵ Likelihood of a particular event to occur over a period of time. A low probability is described as an event that may occur ever 100-500 years, medium event would be every 50 years and a high probability event may occur ever 10 to 20 years.

⁶ The ability of a particular event to produce debris based upon historical data on each event. High debris generation potential would be an event that generates more than 1,000,000 cubic yards of debris. Medium could generate more than 100,000 – 1,000,000 cubic yards and low could generate approximately 50,000 – 100,000 cubic yards of debris.

⁴ September 2010 version

- L = length of building in feet
- W = width of the building in feet
- S = height of building expressed in stories
- 20% = Reduction factor due to airspace in a single-family home; and
- VCM = Vegetative Cover Multiplier⁸

An estimate of a one-story, single-family home that is approximately 2,100 square feet (42 feet by 50 feet) is used for this calculation.⁹ The following formula is used to derive the estimated amount of debris for a totally destroyed household.

$$42' \times 50' \times 1 \times 0.20 \times 1.3 = 546 \text{ cubic yards of debris}$$

A scenario using an EF3 tornado approximately 8.7 miles long, with a width of 400 yards was used to determine the number of buildings/homes that would be affected. Using that scenario, it was determined that approximately 5,073 parcels would be affected by the tornado. See Figure 1.1.

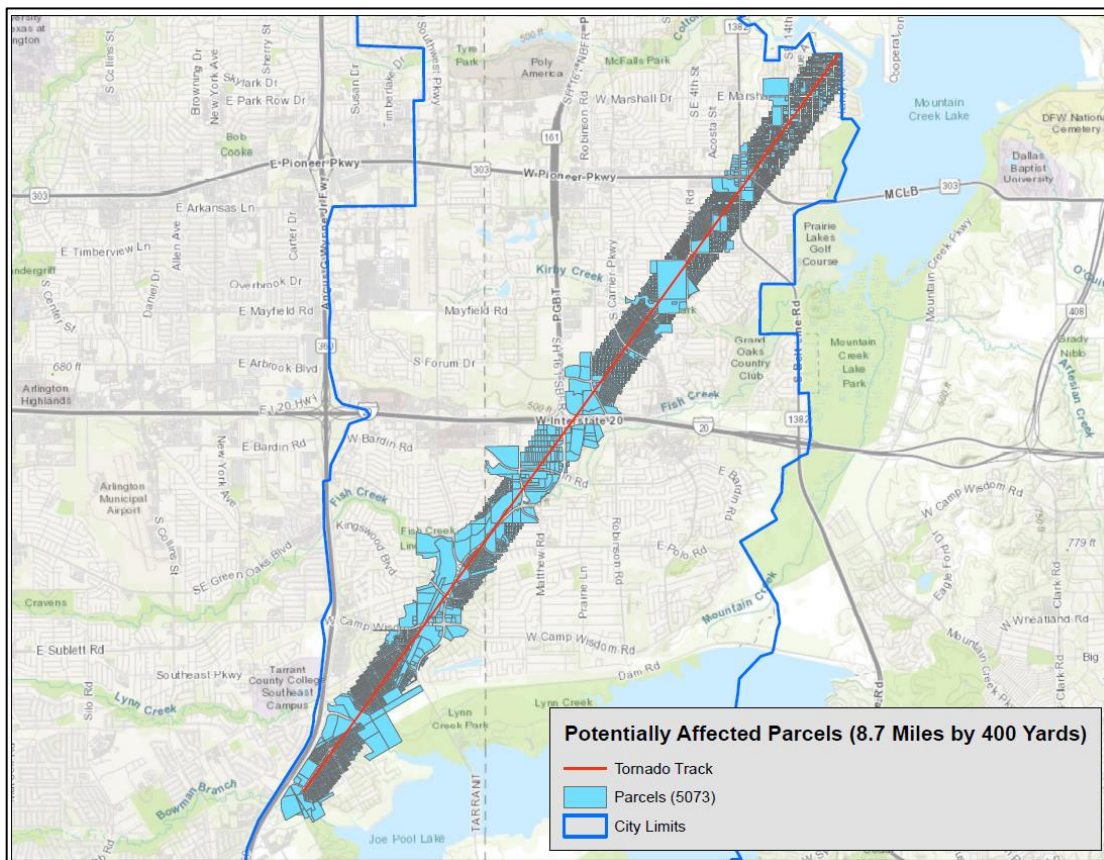


Figure 1-1: EF3 Tornado Scenario

⁸ Medium vegetative cover multiplier is assumed

⁹ Movoto Real Estate, Texas, Grand Prairie Trends, <https://www.movoto.com/grand-prairie-tx/market-trends/>

Scenario 1 – Debris Forecast

The resulting debris estimates were derived by taking the number of impacted parcels (with structures) multiplied by the average amount of CYs of debris generated from a totally destroyed household based on the formula in Figure 1-2. Percentages have been calculated to account for totally destroyed, heavily damaged, and partially damaged buildings for each of the three debris forecast models. The debris forecast for each of the models is presented below.

Table 1-1: Estimated CY of Debris from an EF3 Tornado

| Total Parcels Impacted – 5,073 | | | | |
|----------------------------------|-------------------------|-------------------------|-----------------------|----------------------|
| Amount of Damage | % of Buildings Impacted | # of Impacted Buildings | Average CY Per Parcel | Total Residential CY |
| Partially Damaged (30% Damaged) | 50% | 2,536 | 163.8 | 415,397 |
| Heavily Damaged (60% Damaged) | 30% | 1,522 | 327.6 | 498,607 |
| Totally Destroyed (100% Damaged) | 20% | 1,015 | 546 | 554,190 |
| Total | 100% | 5073 | | 1,468,194 |

Based on the assumptions described above, the estimated debris forecast for a severe tornado, or similar high volume debris incident, is approximately 1,468,194 cubic yards.

1.4.2 Debris Estimate – Scenario 2

A high probability, moderate consequence incident that may impact the City may occur as a high-wind incident susceptible to severe weather, including flooding and strong winds. For this reason, the U.S. Army Corps of Engineers (USACE) hurricane debris estimation model was used to determine the type and volume of debris. While the City will not experience a direct hit from a hurricane, a Category 1 hurricane was used because it most closely resembled the type of conditions related to wind speed and precipitation and flooding the City could experience in a severe weather incident.

1.4.2.1 Debris Forecast Formula

The forecasted amount of residential debris in the City is based on the following formula.

$$Q=H(C)(V)(B)(S)$$

Where:

Q = Cubic yards (CY) of debris

H = Number of households in the community

C = Storm category factor (Category 1)

V = Vegetative characteristic multiplier

B = Commercial multiplier

S = Precipitation characteristic multiplier

1.4.2.2 Storm Category

C is the storm category factor as shown below. It expresses debris quantity in CY per household by hurricane category and includes the house, its contents, and land foliage.

Table 1-2. Storm Category Factor

| Hurricane Category | Value of "C" Factor |
|--------------------|---------------------|
| 1 | 2 |
| 2 | 8 |
| 3 | 26 |
| 4 | 50 |
| 5 | 80 |

1.4.2.3 Vegetative Cover

V is the vegetation multiplier as shown below. It acts to increase the quantity of debris by adding vegetation, including shrubbery and trees, on public rights-of-way (ROW).

- Light (1.1 multiplier) includes new home developments where more ground is visible than trees. These areas will have sparse canopy cover.
- Medium (1.3 multiplier) generally has a uniform pattern of open space and tree canopy cover. This is the most common description for vegetative cover.
- Heavy (1.5 multiplier) is found in mature neighborhoods and woodlots where the ground or houses cannot be seen due to the tree canopy cover.

Table 1-3: Vegetative Cover Factor

| Vegetation Cover | Value of "V" Factor |
|------------------|---------------------|
| Light | 1.1 |
| Medium | 1.3 |
| Heavy | 1.5 |

1.4.2.4 Commercial Multiplier

B is the multiplier that takes into account areas that are not solely single-family residential but includes small retail stores, schools, apartments, shopping centers, and light industrial-manufacturing facilities. Built into this multiplier is the offsetting commercial insurance requirement for owner/operator salvage operations.

Table 1-6: Commercial Multiplier Factor

| Commercial Density | Value of "B" Factor |
|--------------------|---------------------|
| Light | 1 |

| | |
|--------|-----|
| Medium | 1.2 |
| Heavy | 1.3 |

1.4.2.5 Precipitation Multiplier

S is the precipitation multiplier that takes into account either a "wet" or "dry" storm incident.

Table 1-7: Precipitation Multiplier Factor

| Precipitation Characteristic | Value of "B" Factor |
|------------------------------|---------------------|
| None to Light | 1 |
| Medium to Heavy | 1.2 |

1.4.2.6 Scenario 3 - Debris Forecast

A combination of relevant historical data and debris forecast calculations was used to develop the debris forecast in the high-volume debris incident.

- The goal of the debris forecast analysis for a high-wind scenario is to provide the City with a realistic amount of debris that could be generated by an incident.
- A high-wind and rain incident is a plausible scenario for a high frequency, medium consequence incident.

Table 1-6: Scenario 3 - Debris Forecast Analysis

| Total Number of Households | Storm Category Multiplier | Vegetative Cover Multiplier (VCM) | Commercial Property Multiplier | Wet or Dry Storm Multiplier | Debris Estimate (CY) |
|----------------------------|---------------------------|-----------------------------------|--------------------------------|-----------------------------|----------------------|
| 54,108 | 2 | 1.1 | 1.2 | 1.2 | 171,414 |

The estimated cubic yards for a high-wind incident to impact the City is approximately 171,414 cubic yards of debris.

1.4.3 Debris Estimate – Scenario 3

A flooding incident is the third type of debris-generating incident examined under the plan. The City of Grand Prairie Hazard Mitigation Plan calculates flood debris using Hazus software from FEMA. A 0.2% annual chance flooding incident (500-year flood) would generate approximately 4,887 tons or 9,774 CY of primarily construction and demolition debris.

1.5 Local Resource Needs Assessment

Local resources, also known as force account resources, are City-owned resources, including equipment and labor, that the City can use to respond to a debris-generating incident. For relatively minor incidents, the City can rely on its own resources to respond. For larger-scale incidents and disasters, the demand for resources may quickly overwhelm the resources that the City might have

available. In that case, the City may look to mutual aid resources or may rely upon contracted services to provide the needed staffing, equipment, and expertise to help manage the debris. In the event of a large-scale disaster, the City must assess the local labor and determine the resources that might be needed to respond.

The matrix below provides resource requirements for tornado and severe storm debris events based on the debris estimation models.

Assumptions regarding resource requirements for earthquake and severe weather event include the following:

- Average debris collection truck capacity is 35 CY.
- Average number of trips per day for each collection truck is six.
- One monitor in place for each loading unit. Note that a Disposal Monitor will also be needed at the disposal site and DMS if activated.
- Contractor will use tandem self-loading vehicles—two containers for each loading device.
- Volume of debris that can be staged per acre is based on a 10-foot stack height: 16,117 CY/acre.
- Minimum area for a DMS is 5 acres.
- The number of operational days will vary depending on the scope of the operation.
- Number of trucks will fluctuate throughout the operation. Table 1-12 lists the debris resource requirements over the entire operation.

Table 1-7: Debris Resource Requirements

| Incident | Total Debris (CY) | Operational Days | DMS Acres Needed | Tandem Trucks Needed | Collection Monitors Needed |
|---------------------|-------------------|------------------|------------------|----------------------|----------------------------|
| EF3 Tornado | 1,468,194 | 180 | 91 | 38 | 19 |
| Severe Storm/Wind | 171,414 | 60 | 10.6 | 14 | 7 |
| Flooding (500 year) | 9,774 | 7 | 5 | 7 | 4 |

1.6 Authority

This City of Grand Prairie Disaster Debris Management Plan (Plan) is developed, promulgated, and maintained under the following county, state and federal statutes and regulations:

City

- City of Grand Prairie Code of Ordinances
 - Charter, Article III, Section 23(c): – Health
 - Chapter 13, Article VI, Abatement of Hazardous Conditions
 - Chapter 29, Code Compliance
 - City of Grand Prairie Emergency Management Plan
 - The City of Grand Prairie is a signatory of the statewide mutual aid agreement.
-

- Code of Federal Regulations Title 44, Part 200 et seq.

State

- Local Government Code, 54.018 Action for Repair of Demolition of Structure
- Government Code, Title 4, Subtitle 418, Chapter 418, Emergency Management; Sec 418.023 Clearance of Debris; Sec 418.0425 State Emergency Management Plan Annex
- Texas Administrative Code, Title 37, Part 1, Chapter 7; Subchapter A, Emergency Management Program Requirements; Subchapter C
- Health and Safety Code, Title 5, Subtitle A, Chapter 343 Abatement of Public Nuisances; Subtitle B, Chapter 361 Solid Waste Disposal Act

Federal

- Sandy Recovery Improvement Act (SRIA) included as Division B of the Disaster Relief Appropriations Act, PL 113-2, signed into law January 29, 2013
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-707, signed into law November 23, 1988; amended the Disaster Relief Act of 1974, PL 93-288
- U.S. Code, Title 23 Highways, Part 125 Emergency Relief Section 1107 Public Law 112-141 Moving Ahead for Progress in the 21st Century Act (MAP-21), July 2012
- Title 2 Code of Federal Regulations, Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR 200)
- US Code, Title 42, Chapter 103, Comprehensive Environmental Response, Compensation, and Liability (CERCLA) and Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9601 et seq
- Resource Conservation and Recovery Act, 42 U.S.C. §69012 et seq
- Federal Clean Water Act, 33 U.S.C. §1251 et seq
- Toxic Substances Control Act, 15 U.S.C. §1601 et seq
- Occupational Safety and Health Act, 29 U.S.C. §651 et seq
- Hazardous Materials Transportation Act, 49 U.S.C. §1802 et seq
- National Historic Preservation Act, Section 106

1.7 References

City

- City of Grand Prairie Emergency Management Plan
 - City of Grand Prairie Hazard Mitigation Action Plan
-

State

- State of Texas Emergency Management Plan, Catastrophic Debris Management Annex, December 2019
- Managing Debris from Declared Disasters, TCEQ 2017
- State of Texas Emergency Management Plan, Annex K: Public Works and Engineering

Federal

- FEMA Comprehensive Planning Guide 102 Version 2
 - FEMA Publication FP 104-009-2 – Public Assistance Program and Policy Guide, 2020
 - FEMA 329 Debris Estimating Field Guide, September 2010
 - FEMA Public Assistance Alternative Procedures Pilot Program Guide for Debris Removal, Version 6.1, June 28, 2018
 - FEMA Public Assistance Alternative Procedures EMMIE Cost Codes for Debris Removal
 - National Response Framework, Department of Homeland Security, Third Edition, June 2016
 - Pre-Disaster Recovery Planning Guide for Local Governments, FEMA, February 2017
 - National Disaster Recovery Framework, Second Edition, Department of Homeland Security, June 2016
-

Section 2

ROLES AND RESPONSIBILITIES

2.1 Administration and Logistics

All City departments and agencies will maintain records of personnel, equipment, and material resources used to comply with this Plan. Such documentation will then be used to support reimbursement from any state or federal assistance that may be requested or required.

All City departments and agencies supporting debris operations will ensure 12-hour staffing capability during implementation of this Plan, if the emergency or disaster requires, or as directed by the Debris Manager.

The Solid Waste and Recycling Division is responsible for the annual review of this Plan. It will be the responsibility of each tasked department and agency to update its respective portion of the Plan and ensure any limitations and shortfalls are identified and documented, and work-around procedures developed, if necessary.

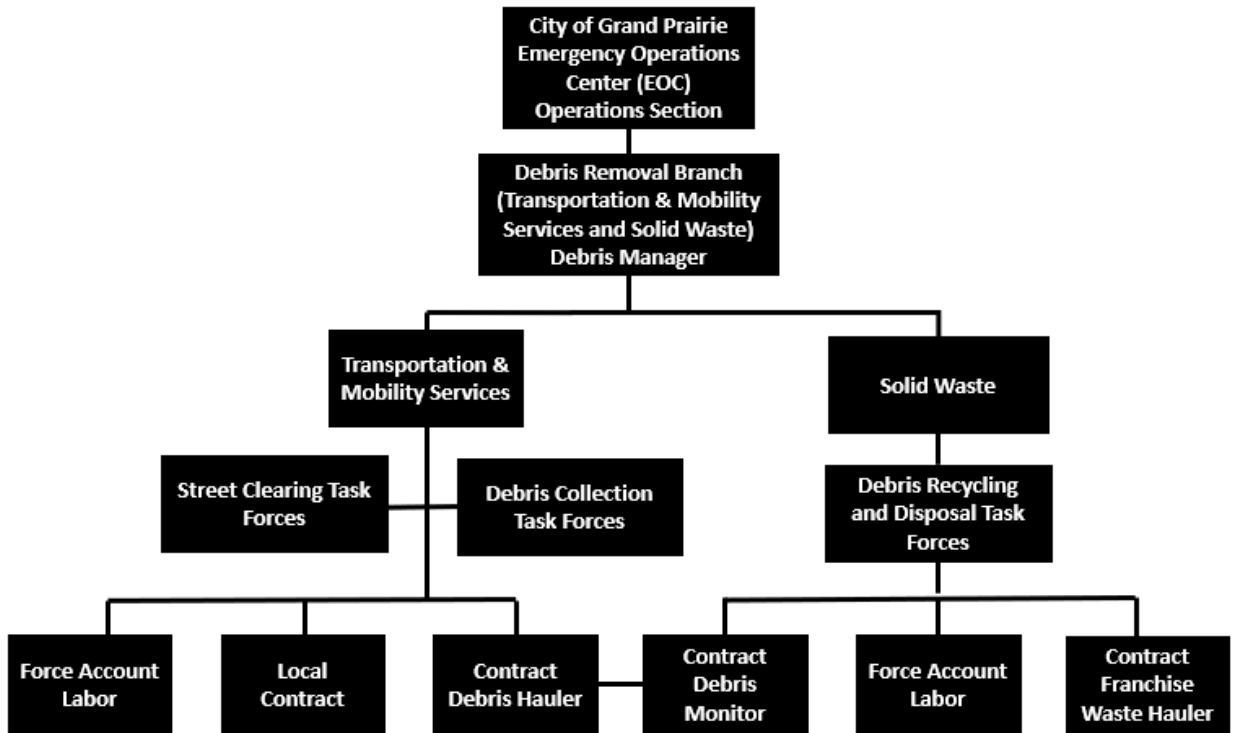
The review will consider such items as:

- Changes in mission;
- Changes in concept of operations;
- Changes in organization;
- Changes in responsibility;
- Changes in desired contracts;
- Changes in pre-positioned contracts; and
- Changes in priorities.

2.2 Lead Departments/Divisions

In order to prevent the duplication of effort following a disaster event, the roles and responsibilities of City departments, as they relate to debris removal and management, must be clearly defined prior to a disaster event. The purpose of this section is to outline the roles and responsibilities various City departments will undertake prior to, during, and following a debris removal operation. The organization structure for debris-generating events, which is based on the Incident Command System (ICS), is described in Figure 2-1. The purpose of the organizational chart is to further clarify roles and facilitate communication following a disaster event.

**Figure 2-1
City Organizational Chart**



2.3 Lead Offices and Departments

The City Manager, supported by the Solid Waste Director and the Transportation and Mobility Services Director, will have primary responsibility for leading and overseeing debris removal and management operations. The unique roles associated with managing the debris cleanup process is summarized below.

2.3.1 City Manager

The City Manager is responsible for the day-to-day management of the City of Grand Prairie. The City Manager provides the mayor, elected officials and the public with information regarding the progress of the debris removal effort and carries out the City Council's policies.

2.3.2 Solid Waste Department and the Transportation and Mobility Services Department

Following a disaster, the Solid Waste Department and the Transportation and Mobility Services Departments will be the lead departments responsible for coordinating with external agencies such as the state and federal government. The directors of both the Solid Waste Department and Transportation and Mobility Services are responsible for providing the Mayor, the City Manager, and elected officials with information regarding the progress of the debris removal effort. The managers of the Solid Waste Department and Transportation and Mobility Services will work collaboratively to coordinate logistical operations prior to and following a disaster event. The Solid Waste Department and Transportation and Mobility Services, together, will serve as the Debris Managers for the duration of the event.

The joint and individual responsibilities of the Solid Waste Department and Transportation and Mobility Services are further defined below:

2.3.2.1 Solid Waste Department

- Obtaining Debris Management Site (DMS) approval.
- Assisting the Finance Department in tracking costs and hours related to their operations.
- Coordinating with designated City departments prior to and after an event.
- Activating monitoring firm contractors.
- Activating debris removal services
- Overseeing all debris monitoring contractors throughout the duration of the cleanup
- Maintaining responsibility of contractor work and payments
 - The Solid Waste Division shall maintain responsibility for contracts associated with the reduction, monitoring and disposal of debris, and also with modification of the Republic Waste Services contract
- Scheduling all training activities and meetings regarding the issue of debris management

Section 2

- The Solid Waste Division will train staff regarding debris sites, equipment, materials handling, monitoring and records handling

2.3.2.2 Transportation and Mobility Services Department

- Assisting the Finance Department in tracking costs and hours related to their operations.
- Coordinating with designated City departments prior to and after an event.
- Maintaining the road list for debris removal operations.
- Activating non-Republic debris removal contractors.
- Assisting in emergency roadway clearing activities following an event.
- Assisting in debris damage assessments within the rights of way of the City following a disaster event
- Overseeing all private hauling contractors throughout the duration of the cleanup process
- Maintaining responsibility of contractor work and payments
 - The Streets Division will maintain responsibility of contractor work and payment for outside hauling contracts except for the contract with Republic Waste Services, the City's established hauling franchisee
- Scheduling all training activities and meetings regarding the issue of debris management
 - The Streets Division will train staff regarding debris hauling

2.4 Interdepartmental Coordination

With the Solid Waste Department and Transportation and Mobility Services acting as the lead agency in the cleanup effort, various additional City departments will have specific duties that will assist in the recovery effort. An account of the primary roles and responsibilities for each department has been summarized in the following section.

2.4.1 Mayor and City Council

The Mayor and the City Council are generally responsible for all legislative and governing activities of the City and are the community's decision makers. The approval or signature of the Mayor or the City Council will be required for various documents throughout the debris removal operation. The City Council also supervises the City Manager.

2.4.2 City Attorney

The City Attorney is responsible for ensuring the legality of all debris removal activities and provides legal advice and representation to the City Council, City Manager, staff and official boards and commissions of the City of Grand Prairie. Specifically, the City Attorney should review all contracts, Right-of-Entry (ROE)/Hold Harmless/Subrogation of Insurance, and any contracts for the use of private land for DMS locations. In addition, the City Attorney will interact

Section 2

with State Legislature ensuring that the City will receive support during significant incidents that overwhelm City resources.

2.4.3 City Secretary

The City Secretary's Office is the custodian of City records, including Council minutes, resolutions, ordinances, contracts, and other documents vital to the history of the City.

2.4.4 Communications and Marketing

The Communications and Marketing Department facilitates manages one- and two-way communication between the City and its public. In response to a disaster the Communications and Marketing Department can provide important information to the public regarding preparations to take in advance of the emergency if the incident can be forecasted, and vital instructions to assist the public in recovering from the disaster including debris set out procedures and the status of City operations.

2.4.5 Economic Development

The Economic Development department develops, advises, manages, and invests to strengthen the commercial business community. After a disaster they can assist the commercial business community by providing information to assist them in recovery.

2.4.6 Emergency Management

The Emergency Management Coordinator is responsible for all phases of emergency management to include preparedness, mitigation, response, and recovery. The Emergency Management Coordinator is responsible for maintaining the Emergency Management Plan and its Annexes. In addition, Emergency Management will coordinate with various state and federal agencies (i.e., FEMA, the Texas Division of Emergency Management, and the Texas Department of Transportation).

Mitigation

The Emergency Management Coordinator in conjunction with city departments will conduct mitigation activities as an integral part of our emergency management program. Mitigation is intended to eliminate hazards, reduce the probability of hazards causing an emergency situation, or lessen the consequences of unavoidable hazards. Mitigation should be a pre-disaster activity, although mitigation may also occur in the aftermath of an emergency situation with the intent of avoiding repetition of the situation. Our mitigation program is outlined in Annex P of the Emergency Management Plan.

Preparedness

The Emergency Management Coordinator in conjunction with city departments will conduct preparedness activities to develop the response capabilities needed in the event an emergency. Among the preparedness activities included in our emergency management program are:

Section 2

- Providing emergency equipment and facilities.
- Emergency planning, including maintaining this plan, its annexes, and appropriate SOPs.
- Conducting or arranging appropriate training for emergency responders, emergency management personnel, other local officials, and volunteer groups who assist us during emergencies.
- Conducting periodic drills and exercises to test our plans and training.

Response

The Emergency Management Coordinator and city departments will respond to emergency situations effectively and efficiently. Response operations are intended to resolve an emergency situation while minimizing casualties and property damage. Response activities include warning, emergency medical services, firefighting, law enforcement operations, evacuation, shelter and mass care, emergency public information, search and rescue, as well as other associated functions.

Recovery

If a disaster occurs, the Emergency Management Coordinator in conjunction with city departments will carry out a recovery program that involves both short-term and long-term efforts. Short-term operations seek to restore vital services to the community and provide for the basic needs of the public. Long-term recovery focuses on restoring the community to its normal state. The federal government, pursuant to the Stafford Act, provides the vast majority of disaster recovery assistance. The recovery process includes assistance to individuals, businesses, and to government and other public institutions. Examples of recovery programs include temporary housing, restoration of government services, debris removal, restoration of utilities, disaster mental health services, and reconstruction of damaged roads and bridges. Our recovery program is outlined in Annex J of the Emergency Management Plan.

2.4.7 Engineering Services

The Engineering Services Department oversees permitting, floodplain management, community development projects, capital improvement projects for the City, drainage projects, manages real estate functions, and inspects public construction in City rights-of-way and easements. In response to a disaster the Engineering Services Department can provide

2.4.8 Finance

The Finance Department is responsible for all financial systems, accounting, purchasing, revenue management, equipment services and fiscal reporting. Throughout the debris removal operation, it will be the responsibility of the Finance Department to coordinate with FEMA and the Solid Waste Department and the Transportation and Mobility Department regarding Project Worksheet (PW) development.

Section 2

2.4.9 Fire

The Grand Prairie Fire Department has several areas of responsibility, including fire suppression, emergency medical services, public fire safety and public education. In case of emergency at a DMS, dial 9-1-1 immediately.

2.4.10 Human Resources

The Human Resources Department is responsible for hiring, employee benefits, and volunteer opportunities in the City. In a disaster, Human Resources will be responsible for coordinating workers compensation claims in the event of employee injuries, making employees aware of available benefits after a disaster such as the Employee Assistance Program, and coordinating volunteer opportunities.

2.4.11 Management Services Department

The Management Services Department is responsible for coordinating with the monitoring firm with regards to contractor invoice reconciliation.

2.4.12 Parks, Arts, and Recreation

The Parks and Recreation Department is responsible for all City parks and facilities. Following a disaster event, the Parks and Recreation Department may be tasked with assisting in emergency roadway clearing activities and/or debris removal from City properties. City parks may also need to be utilized as storage space for debris clearance equipment. In addition, depending on the availability of DMS locations following a disaster event, the City may need to utilize parks as DMS.

2.4.13 Planning and Development

The Building Inspections Division of the Planning Department conducts post-disaster safety inspections on homes and commercial structures during the recovery process, they coordinate with the Building Officials Association of Texas (BOAT) as needed for support in conducting structural and safety assessments, and they reassess homes and commercial structures to ensure repairs are made according to established standards.

2.4.14 Police Department

The Grand Prairie Police Department is responsible for preserving peace and order, preventing and detecting crime, apprehending offenders, and enforcing the law within City limits. Throughout the debris removal operation, the Police Department may provide crowd control, traffic control, or support security operations at the DMS. The Code Enforcement Division is responsible handling city code violations. In a debris generating incident they will be responsible for addressing abandoned or blighted property debris removal.

2.4.15 Public Health and Environmental Quality

The Public Health and Environmental Quality Department provides proactive programs dedicated to protecting the environment, promoting disease prevention, and increasing personal health and safety of the citizens of Grand Prairie. To ensure that these actions can take place during significant emergencies and debris-generating events, the Public Health and Environmental Quality Department focuses on making certain that drinking water is potable, hazardous waste is not a threat to citizens, infectious disease monitoring is enhanced, and vector control is maintained. The director of the Public Health and Environmental Quality Department, in conjunction with the director of the Transportation and Mobility, and the Solid Waste Department, is responsible for providing the Mayor, the City Manager, and elected officials with information regarding the progress of the debris removal effort.

2.4.16 Utilities

The Utilities Department is responsible for maintaining and billing for water and wastewater services in the city. In response to a debris generating disaster, the Utilities Department will assess damage to city utilities equipment, monitor the recovery of privately owned utilities in the city, and may be called upon to use their equipment to help clear streets of debris.

**Table 2-1
City Departments' Roles and Responsibilities**

| Department/Division | Primary Roles/Responsibilities |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lead Departments | |
| City Manager | <ul style="list-style-type: none"> ▪ Provide the Mayor, elected officials and the public with information regarding the progress of the debris removal effort. ▪ Carry out the City Council's policies. |
| Solid Waste and Recycling | <ul style="list-style-type: none"> ▪ Obtain Debris Management Site (DMS) approval. ▪ Assist the Finance Department collection of hours and expenses information for reimbursement. ▪ Coordinate with designated City departments prior to and after an event. ▪ Activate the monitoring firm. ▪ Activate Republic debris removal services. ▪ Oversee all debris monitoring contractors throughout the duration of the cleanup. ▪ Maintain responsibility of contractor work and payments. <ul style="list-style-type: none"> ▪ Maintain responsibility for contracts associated with the reduction, monitoring and disposal of debris, and also with modification of the Republic Waste Services contract. ▪ Schedule all training activities and meetings regarding the issue of debris management. <ul style="list-style-type: none"> ▪ Train staff regarding debris sites, equipment, materials handling, monitoring and records handling. |
| Transportation and Mobility Services | <ul style="list-style-type: none"> ▪ Assist the Finance Department collection of hours and expenses information for reimbursement. ▪ Support debris removal activities in the EOC during an event (Director). ▪ Coordinate with designated City departments prior to and after an event. |

Section 2

| Department/Division | Primary Roles/Responsibilities |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> ▪ Deploy interlocal agreements for debris removal. ▪ Maintain the road list. ▪ Activate debris hauler contractor (non-Republic). ▪ Assist in emergency roadway clearing activities following an event. ▪ Assist in debris damage assessments within the rights of way of the City following a disaster event. ▪ Oversee all private hauling contractors throughout the duration of the cleanup process. ▪ Maintain responsibility of contractor work and payments. <ul style="list-style-type: none"> ▪ Maintain responsibility of contractor work and payment for outside hauling contracts except for the contract with Republic Waste Services, the City's established hauling franchisee. ▪ Schedule all training activities and meetings regarding the issue of debris removal. <ul style="list-style-type: none"> ▪ The Streets Division will train staff regarding debris hauling. |
| Interdepartmental Coordination | |
| Mayor and City Council | <ul style="list-style-type: none"> ▪ Responsible for all legislative and governing activities of the City and are the community's decision makers. ▪ Responsible for the approval of contracts when necessary. ▪ City Council supervises the City Manager. |
| City Attorney | <ul style="list-style-type: none"> ▪ Responsible for ensuring the legality of all debris removal activities. ▪ Interact with State Legislature to ensure the City will receive support during significant incidents. |
| City Secretary | <ul style="list-style-type: none"> ▪ Maintain documents vital to the history of the City, including Council minutes, resolutions, ordinances, and contracts. |
| Communications and Marketing | <ul style="list-style-type: none"> ▪ Develop public information messages related to debris operations. ▪ Update the City website with current information regarding debris management operations. ▪ Update and monitor social media (Facebook, Twitter, and Next Door) posts regarding debris operations. ▪ Address inquiries from the news media. ▪ Conduct news briefings as needed. ▪ Address rumors and misinformation. |
| Economic Development | <ul style="list-style-type: none"> ▪ Communicate with the commercial business community regarding management of debris and resources for disaster recovery. |
| Emergency Management | <ul style="list-style-type: none"> ▪ Monitor potential threats that could affect the city. ▪ Establish emergency shelters during disasters. ▪ Manage the Emergency Operations Center during incidents. ▪ Coordinate the provision of services for individuals affected by a disaster: <ul style="list-style-type: none"> ▪ Identify emergency feeding sites ▪ Identify sources of clothing for disaster victims ▪ Secure emergency food supplies ▪ Coordinate operation of shelter facilities ▪ Coordinate special care requirements for disaster victims ▪ Coordinate the provision of disaster mental health services for victims and responders. |

Section 2

| Department/Division | Primary Roles/Responsibilities |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> ▪ Provide the Mayor, the City Manager, and elected officials with information regarding the progress of the debris removal effort. ▪ Coordinate disaster recovery activities. ▪ Emergency Management Director will serve as EOC Manager during disasters. ▪ Communicating and meeting with various state and federal agencies (i.e., FEMA, the Texas Division of Emergency Management, and the Texas Department of Transportation). |
| Engineering Services – Floodplain Management | <ul style="list-style-type: none"> ▪ Provide floodplain data for consideration of debris management sites. ▪ Provide floodplain data to aid in the development and update of hazard mitigation plans for the city. |
| Engineering Services – GIS | <ul style="list-style-type: none"> ▪ Provide geographic information system (GIS) mapping services to support debris management operations including: <ul style="list-style-type: none"> ○ Jurisdictional boundaries ○ Locations of hazards ○ Location of city assets ○ Status of debris operations ○ Other information as needed |
| Finance | <ul style="list-style-type: none"> ▪ Responsible for all financial systems, accounting, purchasing, revenue management, equipment services and fiscal reporting ▪ Primary contact for FEMA regarding Project Worksheet development |
| Fire | <ul style="list-style-type: none"> ▪ Provide initial information regarding hazards and areas affected by the disaster. ▪ Provide fire suppression at DMS locations. ▪ Provide public information messages regarding the disaster response. |
| Human Resources | <ul style="list-style-type: none"> ▪ Coordinate workers compensation claims. ▪ Make employees aware of available benefits after a disaster such as the Employee Assistance Program ▪ Coordinate volunteer opportunities. |
| Management Services | <ul style="list-style-type: none"> ▪ Coordinate with the monitoring firm with regards to contractor invoice reconciliation |
| Parks, Arts and Recreation | <ul style="list-style-type: none"> ▪ Depending on the severity of event, the Parks and Recreation Department may assist in emergency roadway clearing following a disaster event ▪ Oversee debris removal from City parks |
| Planning and Development | <ul style="list-style-type: none"> ▪ Conduct post-disaster safety inspections on homes and commercial structures during the recovery process. ▪ Coordinate with the Building Officials Association of Texas (BOAT) as needed for support in conducting structural and safety assessments. ▪ Reassess homes and commercial structures to ensure repairs are made according to established standards. |
| Police | <ul style="list-style-type: none"> ▪ Assist in security at the DMS. ▪ Provide crowd control and traffic control. ▪ Enforce any curfews that may be enacted because of a disaster. ▪ Address abandoned or blighted property debris removal (Code Compliance) ▪ Respond to reports of dead or loose animals (Animal Control) |
| Public Health and Environmental Quality | <ul style="list-style-type: none"> ▪ Oversee the safety of debris management operations. ▪ Monitor water and soil impacts from the disaster and debris operations. ▪ Provide direction and monitor hazardous materials handling and disposal. |

Section 2

| Department/Division | Primary Roles/Responsibilities |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none">▪ Monitor DMS operations from an environmental health perspective.▪ Liaise with the Dallas County Health Department and the Texas Commission on Environmental Quality in debris operations. |
| Utilities | <ul style="list-style-type: none">▪ Assess damage to, repair, and restore public utilities.▪ Coordinate with Transportation and Mobility Services and the debris contractor to clear streets.▪ Monitor recovery activities of privately owned utilities. |

2.5 County Agencies and Regional Resources

2.5.1 Dallas County Health and Human Services

The role of the public health departments is to monitor the health status of the communities they serve, monitor and coordinate environmental health activities, determine if debris poses a public health threat, and issue guidance to the public regarding public health threats and provide assistance to affected cities as needed.

2.5.2 Dallas County Department of Homeland Security and Emergency Management/Tarrant County Office of Emergency Management

The county offices of emergency management will establish and maintain the Emergency Operations Center to serve affected jurisdictions, coordinate the utilization of County resources to meet local resource requests and forward resource requests that the County is unable to fill to the regional Disaster District Committee (DDC).

2.5.3 Dallas/Tarrant/Johnson County Office of the Medical Examiner/Ellis County Justice of the Peace

The role of the medical examiner's offices and the Ellis County Justice of the Peace will be to determine the cause and manner of death for those deaths within the jurisdiction of the office; generally, sudden, and unexpected deaths.

2.5.4 Public Works Emergency Response Team (PWERT)

The PWERT provides public works resources and staff through public works-related agencies in North Texas that have signed a mutual aid agreement to facilitate a process whereby any public works agency may request aid and assistance in the form of personnel, equipment, materials, and/or other associated services from other public works-related agencies.

Section 2

**Table 2-2
County Department Roles and Responsibilities**

| County Agency or Regional Resource | Primary Roles/Responsibilities |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| County public health departments | <ul style="list-style-type: none"> ▪ Monitor the health status of the communities they serve. ▪ Monitor and coordinate environmental health activities. ▪ Determine if debris poses a public health threat. ▪ Issue guidance to the public regarding public health threats and provide assistance to affected cities as needed. |
| County emergency management agencies | <ul style="list-style-type: none"> ▪ Establish and maintain the Emergency Operations Center to serve affected jurisdictions. ▪ Coordinate the utilization of County resources to meet local resource requests. ▪ Forward resource requests that the County is unable to fill to the regional Disaster District Committee (DDC). |
| County medical examiner’s office and the Ellis County Justice of the Peace | <ul style="list-style-type: none"> ▪ Determine the cause and manner of death for those deaths within the jurisdiction of the office; generally, sudden, and unexpected deaths. |
| Public Works Emergency Response Team (PWERT) | <ul style="list-style-type: none"> ▪ Provide public works resources and staff through public works-related agencies in North Texas. |

2.6 State Agencies

2.6.1 Texas Department of Transportation (TxDOT)

TxDOT is responsible for emergency road clearing activities immediately after a natural disaster and the “first pass” of debris removal on all state and federal roads within the city.

2.6.2 Texas Commission on Environmental Quality (TCEQ)

TCEQ representatives will be involved in all phases of DMS selection, closure and environmental input. TCEQ approval is required for all DMS locations. The City may notify TCEQ regarding potential DMS locations in order to obtain pre-approval for the use of these sites in the event of a tornado or other debris-generating event.

2.6.3 Texas Division of Emergency Management (TDEM)

TDEM is responsible for the administration of a program of comprehensive emergency management. The program is designed to reduce the vulnerability of citizens and communities of the State of Texas to damage, injury and loss of life and property by providing a system for the mitigation of, preparation for, response to, and recovery from natural or man-made disasters, riots and/or hostile military or paramilitary actions. If the Disaster District Committee (DDC) is unable to meet requests for State assistance, the Chair will request State assistance from the State Emergency Management Council through the TDEM. That assistance may then come from State assets, i.e., the National Guard or other State agencies or from neighboring Disaster Districts.

Section 2

2.6.4 Texas General Land Office (GLO)

The GLO will provide assistance in the removal of derelict vessels and coordinate debris removal from publicly owned beaches and State-owned submerged lands. The GLO also manages recovery grants through the U.S. Department of Housing and Urban Development (HUD).

2.6.5 Texas Historical Commission (THC)

The THC coordinates post-event disaster management site application to ensure compliance with Section 106 of the National Historic Preservation Act as administered through Title 36 of the Code of Federal Regulations and compliance with the Antiquities Code of Texas and its implementing regulations.

**Table 2-3
State Agency Roles and Responsibilities**

| State Agency | Primary Roles/Responsibilities |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Texas Animal Health Commission (TAHC) | <ul style="list-style-type: none">▪ Provide assistance regarding the disposition of dead animals. |
| Texas General Land Office (GLO) | <ul style="list-style-type: none">▪ Provide assistance in the removal of derelict vessels.▪ Coordinate debris removal from publicly owned beaches and State-owned submerged lands. |
| Texas Department of State Health Services (DSHS) | <ul style="list-style-type: none">▪ Oversee health and safety issues pertaining to debris removal and disposal operations. |
| Texas Department of Transportation (TxDOT) | <ul style="list-style-type: none">▪ Maintains road clearance responsibility for all state and federal roads |
| Texas Commission on Environmental Quality (TCEQ) | <ul style="list-style-type: none">▪ Approves the use of land as DMS▪ Assists in closure of DMS and verifies remediation of land to original state |
| Texas Division of Emergency Management (TDEM) | <ul style="list-style-type: none">▪ Manages the state's comprehensive emergency management program |
| Texas Historical Commission (THC) | <ul style="list-style-type: none">▪ Coordinates post-event disaster management site application to ensure compliance with Section 106 of the National Historic Preservation Act.. |

2.7 Federal Agencies

2.7.1 Federal Emergency Management Agency

Representatives from FEMA will be on-site during the response and recovery phases of the debris management cycle. FEMA staff will provide guidance to the City with regards to debris eligibility and the FEMA reimbursement process. FEMA's primary role will be in the development of PWs

Section 2

for the City's debris cleanup operations. In addition, FEMA staff will be on-site to oversee any ROE private property cleanup, should this be declared in the City.

2.7.2 Federal Highway Administration

The Federal Highway Administration (FHWA) is responsible for the funding of debris clearance and removal on federal aid highways through the Emergency Relief (ER) Program for an event not declared a major disaster or emergency by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, or an event declared a major disaster or emergency by the President under that Act if the debris removal is not eligible under section 403, 407, or 502.

2.7.3 Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS) provides assistance through the Emergency Watershed Protection (EWP) Program in debris cleanup for runoff retardation or soil erosion prevention that causes impairment in watershed and is an imminent threat to life or property.

2.7.4 Office of Inspector General (OIG)

The OIG conducts an aggressive and ongoing audit effort designed to ensure that disaster relief funds are spent appropriately while identifying fraud, waste, and abuse as early as possible.

2.7.5 U.S. Army Corps of Engineers (USACE)

The USACE assists local jurisdictions in debris removal operations following catastrophic incidents as well as provide assistance in assessing and restoring critical infrastructure.

Section 2

**Table 2-4
Federal Agencies Roles and Responsibilities**

| Federal Agency | Primary Roles/Responsibilities |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Federal Emergency Management Agency | <ul style="list-style-type: none">▪ Provides funding to eligible applicants in debris removal efforts from public and private property following a presidential disaster declaration. |
| Federal Highway Administration | <ul style="list-style-type: none">▪ Responsible for the funding of debris clearance and removal on federal aid highways in a non-declared disaster or in an event not covered under sections 403, 407, or 502 of Robert T. Stafford Disaster Relief and Emergency Assistance Act. |
| Natural Resource Conservation Service | <ul style="list-style-type: none">▪ Provides funding for debris cleanup for runoff retardation or soil erosion prevention that causes an impairment in watershed and is an imminent threat to life or property.▪ Reserve first Right-of-Refusal for funding debris removal from inland or navigable waterways. |
| Office of Inspector General (OIG) | <ul style="list-style-type: none">▪ Conducts audits to ensure that disaster relief funds are spent appropriately. |
| US Army Corps of Engineers (USACE) | <ul style="list-style-type: none">▪ Support local emergency response (including debris removal) following catastrophic incidents.▪ Assess and restore critical infrastructure. |

2.8 Contractors

Following a disaster event, federal, local and other external agencies will have some level of involvement in the City's debris removal and management efforts. Table 2-2 summarizes the roles and responsibilities of outside agencies during the debris removal process. Representatives from these groups should be contacted annually so that the City is aware of any changes as they relate to debris removal. In addition, in the event of a disaster, some or all of the agencies listed below may require weekly or bi-weekly meetings in order to update the agencies on the debris cleanup progress.

2.8.1 Republic Waste Services, Inc.

The City's contracted franchise waste hauler, Republic Waste Services, Inc., shall be contacted prior to a debris-generating event in order to establish equipment needs or shortfalls. The City's contracted franchise waste hauler shall have the first right of refusal for final disposal hauling of reduced debris materials. A copy of the contract between the City and Republic Waste Services, Inc. is provided in Appendix N of the City's DDMP.

2.8.2 Debris Haulers

Contract debris hauler services might be used in response to a debris generating incident based upon the severity of the disaster and the extent of debris. The city currently maintains standby

Section 2

contracts with debris hauler contract firms in the event these services are needed to respond to and incident. The responsibilities of the debris hauler contract firms include the following:

- Clear and remove debris from jurisdiction roadways and waterways to make them passable immediately following a declared disaster.
- Conduct debris removal from the ROW.
- Decommission, demolish, and dispose of eligible non-regulated asbestos-containing material (non-RACM) structures on private property.
- Manage and operate DMS locations.
- Conduct debris reduction.
- Haul-out reduced materials to recycling/end-use facilities.
- Remove hazardous leaning trees and hanging limbs.
- Removal of hazardous stumps.
- Remove white goods debris from the ROW.
- Coordinate the removal of household hazardous waste (HHW) from the ROW.
- Coordinate derelict vehicle removal and abandoned vehicle removal.
- Remove animal carcasses from areas designated by the City.
- Communicate status of operations and supply chains as well as challenges and timelines to local officials.

2.8.3 Debris Monitors

FEMA dictates if contract debris hauler firms are used they must be monitored. Not monitoring contract debris hauler firms may jeopardize public assistance funding to the city for those expenses. Using a contract debris monitoring firm is an eligible expense under the public assistance program and is reimbursable under the program. The role of the contract debris monitoring firm includes the following:

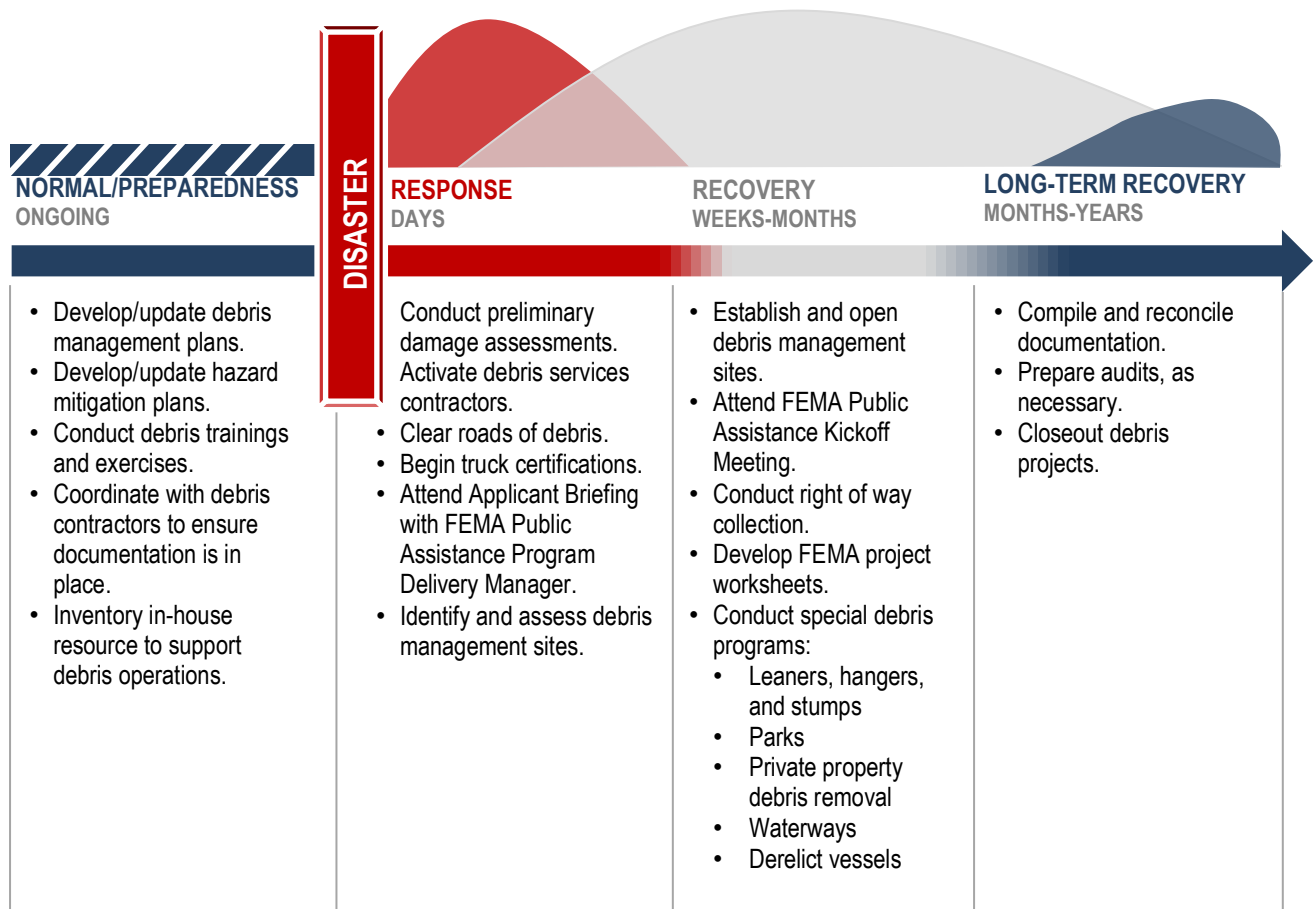
- Perform truck certifications.
- Conduct DMS monitoring.
- Conduct ROW collection monitoring.
- Conduct disposal site monitoring.
- Support monitoring and documentation of hazardous tree removal and specialized debris removal programs such as waterways debris removal and private property debris removal.

Section 3

DEBRIS COLLECTION AND REMOVAL PLAN

This section provides guidance required for all phases of a debris-generating event. For the purposes of this Plan, four phases are discussed: Normal Operations, Pre-Event Preparation, Post-Event Response and Post-Event Recovery.

**Figure 3-1
Disaster Recovery Timeline**



3.1 Normal Operations

Normal Operations is the period of time when the City is not in any serious threat of a disaster event. Tornadoes and severe thunderstorms can occur at any time but are most likely to take place throughout the spring and summer months in the southern portions of the United States. However, the City’s geographic location is in an area of the country commonly known as “Tornado Alley,” due to the high number of storms that occur in this region year-round. Therefore, Grand Prairie

Section 3

may experience tornadoes or other debris-generating events throughout the year, so it is imperative to maintain a constant state of preparedness throughout Normal Operations by reviewing and updating the plan annually.

The Normal Operations phase is the ideal time for the City to establish and/or review pre-positioned contracts with its monitoring firm and debris removal contractor(s), identify and secure pre-approval from TCEQ for locations to serve as DMS locations and review current local ordinances and their historical impact on debris removal operations. The Normal Operations period is also the ideal time for the Solid Waste and Recycling Division and lead City departments in debris recovery efforts, to re-evaluate the roles and responsibilities of each City department and other involved outside agencies. The purpose of this evaluation is to ensure that all impacted departments, municipalities and external agencies maintain the capacity to fulfill their obligations in a timely and effective manner should a disaster strike the City. Once roles and responsibilities have been re-evaluated, a review and update of the Plan should be conducted annually, prior to tornado season. Also, prior to tornado season, a pre-season kick-off meeting should be held with the City and their pre-positioned monitoring firm and debris removal contractors. The Normal Operations Checklist is also provided in Appendix R.

Normal Operations Checklist

- Update contact lists
- Evaluate DMS locations
- Review road list and road maps
- Establish and maintain pre-positioned contracts
- Review FEMA guidance

Update Contact Lists

Contact lists for staff should be updated periodically to reflect changes in personnel or contact information.

Evaluate DMS locations

Locations identified to serve as DMS following a debris-generating event should be re-evaluated annually to ensure they still remain viable candidates for DMS operations. Likewise, additional DMS locations may be identified as the development and landscape of the City progresses over time. The City can obtain pre-approval for DMS through the TCEQ.

Review Road List and Road Maps

Changes or updates relating to road segments and applicable maintenance responsibility amongst local, state and federal agencies are critical for reimbursement through the PA Grant Program and the FHWA Emergency Relief Program. It is critical that the City reviews and updates road lists and maps annually. Updated and accurate road lists and maps will assist in documenting debris removal operations and thereby assist the City during the reimbursement process.

Establish and Maintain Pre-Positioned Contracts

During times of normalcy, the City should establish and maintain pre-positioned contracts for debris monitoring and debris removal services. The procurement of such services should be compliant with City procurement practices (see Appendix L for the City's Procurement Procedures) and the procurement competition requirements specified in the Code of Federal Regulations – Title 44 Emergency Management and Assistance (44 CFR) Part 13.36. For additional guidelines regarding procurement see Appendix K. See Appendix A for a list of debris removal contractors and monitoring firms that may be pre-positioned by the City. Appendix P will include additional details regarding the evaluation and selection of the debris removal contractors once they are selected.

Review Federal Emergency Management Agency Guidance

Rules and regulations dictating operational procedures change periodically, the information in the Plan should be updated annually to reflect such changes.

3.2 Pre-Event Preparation

The City should begin pre-event preparations when a debris-generating event is moving toward Grand Prairie. However, because of the relatively short notice that most events have that could affect the City, the opportunity to make pre-event preparations is limited. If it is feasible to employ pre-event preparations, key City personnel and representatives of involved outside agencies (see Table 3-1), as well as their staffs, should be put on alert and maintain awareness that they may be required to work extended hours in adverse conditions. All relevant parties will be briefed of their specific duties as outlined in Table 2-1.

The availability of pre-selected/pre-approved DMS locations will be evaluated by the Solid Waste Department. A list of potential DMS locations can be found in Appendix B, Debris Management Site Report. Alternate locations will be considered by prioritizing potential alternate sites if one or more pre-approved sites are not available. City representatives should place the pre-positioned monitoring firm and debris removal contractors on stand-by.

Pre-Event Checklist

- Download most recent road list and relevant documents to a portable storage device;
- Alert key personnel and place monitoring firm and debris removal contractors on stand-by;
- Review Plan with key personnel; and
- Issue pre-event media public information messages.

The checklist performed during pre-event preparation is critical in assembling a coordinated response. The checklist is a valuable tool to ensure that proper steps are taken in a time of extreme duress. The Pre-Event Checklist is also provided in Appendix R.

Section 3

Download Most Recent Road List and Relevant Documents to a Portable Storage Device

The Solid Waste Department will acquire and download to portable storage device the most recent street list and maps of the City prior to the debris-generating event. Many of the computers and servers that store this information may be unavailable immediately following an event. Having this information on-hand ensures that debris collection operates properly and commences in a timely manner. It is critical that the City provide updates of the road list to their monitoring firm as they become available.

Copies of the portable storage device should be stored at the Solid Waste Department building and in a safe location outside the projected path of the debris-generating event.

Alert Key Personnel and Place Monitoring Firm and Debris Removal Contractors on Stand-By

Prior to a debris-generating event, City personnel should be put on alert. Additionally, the Solid Waste Department should contact key City personnel via verbal and electronic communication informing them of information needed to begin the response and recovery process.

The City's monitoring firm and debris removal contractors should be put on alert by the City that their contracts may be activated (See Appendix A for contact information). Discussions with the monitoring firm and debris removal contractors should address the following key issues:

- Availability and amount of assets that will be dedicated to debris removal operations;
- Estimated time of mobilization;
- Exchange of mobile contact information; and
- Identification of staging area(s) for truck certification.

Review Plan with Key Personnel

Once an initial meeting is scheduled with all of the City's key contacts, the co-managers of debris operations, the monitoring firm and debris removal contractors should review the Disaster Debris Management Plan. During the initial meeting, the Health and Safety Strategy located in Appendix J of this plan should also be reviewed by the City and modified/appended as necessary.

Public Information Pre-Event

The co-managers of debris operations and the Public Information Officer through the EOC will provide the City Manager with a pre-event media public information message preparing residents for the potential debris removal operation. The public information message should assure the public that the City is prepared and has a plan in place to immediately respond to an event. The public information message should also include information on City office closure times/dates (this should include information regarding garbage collection and City facilities). In addition, the City should provide information on proper set-out procedures and estimates on when the cleanup process will begin. A draft public information message for this scenario is included in Appendix E, Public Information Messages.

3.3 Post-Event Response

Emergency road clearance encompasses the activities that are taken to clear roads of scattered debris, leaning trees and other obstructions in roadways for emergency response vehicles. This operation is reimbursable by FEMA on a time and materials basis. It is critical that all types of equipment and the amount of time the equipment is used are documented with detail and accuracy. (Please note that the reimbursement criteria and duration for time and materials work is subject to change following a disaster.)

During this phase, the Transportation and Mobility Services Department, depending on the severity of the event, should initiate emergency roadway clearing operations. If necessary, the City may request additional resources for emergency road clearance operations from its debris removal contractor. Road clearance priorities are pre-established to allow access to critical public facilities such as: fire stations, police stations, hospitals, shelters, emergency supply centers and other critical facilities. Concurrent to emergency push operations, the City's debris removal contractor should perform necessary preparation work to open DMS locations.

Emergency Road Clearance Priorities

The following roads will require priority for emergency road clearance operations. This list was compiled based on many considerations including size, proximity to adjacent citizen populations, police and fire department locations and ingress/egress capabilities for the community. The City's largest thoroughfares are Interstate 20, Interstate 30, Pioneer Parkway (Spur 303), Patriot Parkway (Spur 408), US-67 and South Beltline Road (FM 1382). Though these thoroughfares are a priority for the City of Grand Prairie, the Texas Department of Transportation is the agency responsible for clearing and maintaining them.

Emergency clearance priorities that fall under the responsibility of the City include:

- 19th Street
- Bardin Road (connects East Polo Road to Highway 360)
- Bowles Street
- Camp Wisdom
- Carrier Parkway
- Conover Road
- Duncan Perry
- England Parkway (connects Lake Ridge to Highway 360)
- Hill Street (connects Beltline to Highway 161)
- Jefferson Street
- Lake Ridge Parkway
- Main Street
- Marshall Drive

Section 3

- Mayfield Road
- Mountain Creek Parkway
- Northwest 2nd Street (Stadium Drive)
- Polo Road
- Roy Orr Boulevard
- South Great Southwest Parkway
- South Macarthur Boulevard
- South Robinson Road
- Southeast 14th Street (connects main street to South Beltline)
- Southwest 3rd Street (connects Main Street to Pioneer Parkway-Spur 303)
- Southwest Parkway
- Tarrant Road (fire department located at Tarrant Road and Duncan Perry; connects Beltline to Arlington city limits)
- Warrior Trail

Post-Event Response Checklist

The following response checklist is critical in assembling a coordinated response. The checklist is a valuable tool to ensure that proper steps are taken in a time of extreme duress. The Response Checklist is also provided in Appendix R.

- Conduct damage assessments
- Activate monitoring firm and debris removal contractors
- Begin emergency roadway debris clearance
- Begin truck certification
- Prepare DMS based on concentration of debris
- Conduct meetings/briefings with key personnel
- Review debris volume and collection cost assessment
- Request contact information and meeting with TDEM and FEMA Public Assistance Program Delivery Manager (PA PDMG).
- Issue public information message.

Conduct Damage Assessment

Damage assessments are necessary to determine the extent and the location of the debris. Windshield surveys of the City should be taken and used to communicate critically damaged areas to the Public Works Department and to the EOC. If possible, additional surveys should be conducted by helicopter in order to obtain an aerial view of damaged areas within the City. Often

times, helicopter or drone surveys are available through debris removal contractors independently surveying the City to determine asset levels and configuration.

Activate Monitoring Firm and Debris Removal Contractors

The Solid Waste Department will utilize the damage assessments to determine whether to activate the monitoring firm and debris removal contractors. The Solid Waste Department should immediately meet with the City Manager to make this determination. Once the monitoring firm and debris removal contractors are activated, each contractor should review an updated street list, debris collection zone maps (Appendix H) and the Health and Safety Strategy (Appendix J). The monitoring firm and debris removal contractors should begin logistical coordination and equipment ramp-up immediately upon receiving a Notice to Proceed.

Monitoring Function

Upon activation, the monitoring firm deploys staff to support truck certification, collection and disposal monitoring functions. The monitoring firm will orient employees with operational procedures and refresh staff with the field training program on current debris removal eligibility, FEMA requirements, City debris removal contract requirements and safety procedures. Collection monitors must carefully document debris collection information to demonstrate eligibility and ensure proper debris removal contractor payments and FEMA reimbursement. The documentation is typically collected using an Automated Debris Management System (ADMS) and should include:

- Applicant Name (City of Grand Prairie)
- Location of debris, including full address and zone
- Time and date of collection
- Name of contractor
- Name and unique employee number of monitor
- Truck certification number
- Truck capacity (disposal site monitor will fill out load call [percentage] information)
- Debris classification
- Disaster declaration number

Debris Removal Contractor Function

Upon activation, the debris removal contractor mobilizes staff and equipment to the event location. Equipment will be certified as required by the monitoring firm. With regards to DMS locations, site preparation, including logistical setup and tower construction, will begin. The contractor will orient subcontractors with operational procedures and refresh staff with current debris removal eligibility, FEMA requirements, city debris removal contract requirements and safety procedures.

Begin Emergency Roadway Debris Clearance

The City should commence with road clearance or “cut and toss” activities. These operations should first focus on major arteries leading to storm shelters, hospitals, fire stations, police stations, supply points and other critical locations throughout the City.

Section 3

Begin Truck Certification

Truck certification is the most important function in initiating a debris removal operation. Accuracy and documentation of all measurements is critical. All debris removal trucks hauling debris under a volumetric contract with the City must have their capacity and dimensions measured, sketched, photographed and documented on a truck certification form (See Appendix C, Field Documents) or the information can also be collected via a ADMS. Each debris removal truck will be assigned a unique number for debris tracking and invoice reconciliation purposes. Truck certifications should contain:

- Unique truck number
- Driver name
- Driver phone number
- License number, state issued, and expiration
- Tag number, state issued, and expiration
- Vehicle measurements
- Sketch or picture of the vehicle

Prepare Debris Management Sites Based on Concentration of Debris

Solid Waste Department staff, the monitoring firm and debris removal contractors will meet to discuss the opening and operation of pre-identified DMS locations. Before DMS preparation begins, the Solid Waste and Recycling Division will obtain DMS approval from TCEQ. The following items should be taken into consideration when opening and operating DMS:

Qualification criteria

- Current availability
- Duration of availability
- Ingress/Egress
- Concentration of debris relative to each site
- Geographic location within the City

Reduction Method

- **Chipping and Grinding** – Using this method, vegetative debris is chipped or ground and typically results in a reduction ratio of 4:1. The leftover mulch is either hauled to a final disposal facility or recycled. Chipping and Grinding is the City’s first choice for debris reduction.
- **Incineration** – The open burning of vegetative debris does require approval from the Division of Forestry. The burning of vegetative debris typically results in a reduction ratio of 20:1. The leftover ash may be hauled to a final disposal facility or be incorporated in a land application.

DEBRIS COLLECTION AND REMOVAL PLAN

- **Crushing** – The crushing of vegetative debris is the least effective reduction method and results in a reduction ratio of 2:1. Crushing is an appropriate reduction method for construction and demolition (C&D) debris that cannot be recycled.

Recycling of Debris

Common recyclable materials that are a result of a debris-generating event include wood waste, metals and concrete. The following are potential uses for each of the materials:

- **Wood Waste** – Vegetative debris that is reduced through chipping or grinding results in leftover mulch. The remaining mulch can be used for agricultural purposes or fuel for industrial heating. For the mulch to be viable in agricultural purposes the end user typically has a size requirement and requests mulch is as clean as possible of plastics and dirt.
- **Metals** – Metal debris such as white goods, aluminum screened porches, etc. that may result from a debris-generating event can be recycled. Certain metals such as aluminum and copper are highly valuable to scrap metal dealers.
- **Concrete** – Concrete, asphalt and other masonry products that may become debris as a result of a debris-generating event can be crushed and potentially used for road construction projects or as trench backfill.

There is a multitude of information available regarding the recycling and selling of solid waste debris. An example of such resource is the Southern Waste Information eXchange, Inc. website (<http://www.wastexchange.org>) which is a non-profit clearinghouse with information regarding the recycling of solid waste. Table 3-1 is a list of possible end users for recyclable debris.

**Table 3-1
Recyclable Materials and End Users**

| Commodity | Market | Name | Contact |
|--------------------------------------------|----------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------|
| Vegetative Debris, Metal, Concrete | Solid waste, wood, concrete/brick, asphalt, steel, aluminum | Grand Prairie Landfill | 1102 MacArthur Blvd. Grand Prairie, TX 75053 (972) 237-8151 |
| Mulch, Vegetative Debris, Metal, Concrete | Biomass, Wood, fines, concrete/brick, asphalt, steel, aluminum | Arlington Sanitary Landfill | 800 Mosier Valley Rd Euless, TX 76040 (817) 354-2300 |
| Concrete, Debris, Vegetative Debris, Metal | Biomass, wood, concrete/brick, asphalt, steel, solid waste | Irving Landfill | 200 W. Hunter Ferrell Rd., Irving, TX 75060 (972) 264-3772 |
| Televisions & Computers | Televisions & Computers | Monitex LLC | 2920 114th Street, Suite #100. Grand Prairie, Texas 75050 (817) 701-1200 |
| Hazardous Household Waste | Household Hazardous Waste | Fort Worth Environmental Control Center | 6400 Bridge St. Fort Worth, Texas, 76112 (817) 871-5257 |
| Medical Waste | Medical Waste | Stericycle | 713 W Oakdale Rd Grand Prairie, TX 75050 (972) 262-6000 |

Section 3

| Commodity | Market | Name | Contact |
|------------------------|--------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|
| Crushing and Shredding | Crushing and Shredding materials | Granutech-Saturn Systems | 201 East Shady Grove Road Grand Prairie, TX 75050 (972) 790-7800 |
| Hazardous Waste | Used Oil, Contaminated Waste, Solid Waste | RS Used Oil Inc. | 2433 Houston St Grand Prairie, TX 75050 (469) 733-1530 |
| Metal | Aluminum, brass, copper | Valley Recycling | 3914 E Jefferson St Grand Prairie, TX 75051 (972) 264-0205 |
| Metal | Aluminum, brass, carbide, cobalt, copper, nickel, etc. | American Scrap Metal | 9139 Boulevard 26 Ste. 540-117 North Richland Hills, TX 76180 (817) 657-2310 |

DMS Preparation

After a review of the availability and suitability of DMS, the debris removal contractor can begin site preparation. As part of the preparation, baseline data should be gathered from the site to document the state of the land before debris is deposited. The following action items are recommended to compile baseline information:

- **Photograph the Site** – Digital photos should be taken to capture the state of the site before debris reduction activities begin. Photos should be updated periodically throughout the project to document the progression of the site.
- **Record Physical Features** – Records should be kept detailing the physical layout and features of the site. Items such as existing structures, fences, landscaping, etc. should be documented in detail.
- **Historical Evaluation** – The past use of the site area should be researched and documented. Issues relating to historical or archeological significance of the site should be cleared with the state historical preservation agency.
- **Sample Soil and Water** – If possible and deemed necessary, soil and groundwater samples will be taken before debris reduction activities commence. Samples will help ensure the site is returned to its original state. Typically soil and groundwater samples should be analyzed for total RCRA metals, volatile organic compounds and semi-volatile organic compounds using approved EPA methods.

The Transportation and Mobility Services Department and monitoring firm will oversee the debris removal contractor's activities to ensure that they are in compliance with their contractual obligations, environmental standards and acting in the best interest of the City and its residents. TCEQ will be contacted to provide final approval under an emergency declaration for the DMS locations.

Disposal Monitoring

The primary function of the monitoring firm with regards to disposal monitoring is to document the disposal of disaster debris at approved DMS and final disposal locations. Monitors perform quality assurance/quality control (QA/QC) checks on all load tickets and haul-out tickets to ensure

DEBRIS COLLECTION AND REMOVAL PLAN

that information captured by collection monitors is complete. This QA/QC includes but is not limited to:

- Inspection of truck placards for authenticity and signs of tampering;
- Verification that placard information is documented properly; and
- Verification that all required fields on the load ticket have been completed.

Afterwards, the disposal monitor will document the amount of debris collected by making a judgment call on vehicle fullness (typically on a percentage basis). The percentage documented for each debris removal vehicle is later applied to the calculated cubic yard capacity of the vehicle to determine the amount of debris collected. The disposal monitor's responsibilities include, but are not limited to:

- Completing and physically controlling load tickets;
- Ensuring debris removal trucks are accurately credited for their loads;
- Ensuring trucks are not artificially loaded;
- Ensuring hazardous waste is not mixed in with loads;
- Ensuring all debris is removed from the debris removal trucks before exiting the DMS or final disposal site; and
- Ensuring only debris specified within the City's scope of work is collected.

In addition to the responsibilities listed above, final disposal site monitors are also tasked with the following:

- Ensuring all debris is disposed at a properly permitted landfill; and
- Matching landfill receipts and/or scale house records to haul-out tickets.

An inspection tower must be provided so the Disposal Monitor can see down in the truck beds to conduct load calls. A scissor jack made be used for this purpose or an inspection tower can be constructed. The inspection platform of the tower must be constructed at a minimum height of ten (10) feet from surrounding grade to finish floor level, have a minimum eight (8) feet by eight (8) feet of usable floor area, be covered by a roof with two (2) feet overhangs on all sides, and be provided with appropriate railings and a stairway. The platform must be enclosed, starting from platform floor level and extending up four (4) feet on all four (4) sides. Provision of an inspection tower can be delegated to the County's contract debris hauler firm.

Conduct Meetings/Briefings with Key Personnel

Coordination meetings and briefings with key personnel should be conducted to update the status of the road clearance efforts, DMS openings, contractor asset ramp-up and pertinent public information for public information messages.

Daily meetings should be held each morning at a location determined by the City and include key personnel from the City, monitoring firm and debris removal contractors. The purpose of daily meetings is to focus on daily objectives and include a discussion of operational progress and best practices moving forward. During the meeting the City will also review real time statistics and completion maps that reflect operations through the end of the previous day.

Section 3

Review Debris Volume and Collection Cost Assessment

The Solid Waste Department, Transportation and Mobility Services Department, monitoring firm and debris removal contractors will meet to review the debris volume and collection cost assessment. The topics of discussion in this meeting may include, but are not limited to:

- Amount of debris generated (total cubic yards);
- Type of debris generated (vegetative, C&D or other miscellaneous debris);
- Number and estimated date of arrival for assets (trucks, loaders, monitoring personnel);
- Estimated number of DMS locations necessary;
- Preliminary scope of debris removal efforts; and
- Estimated cost of the debris removal efforts.

Following this meeting, the City and/or monitoring firm will begin to collect required documentation for the development of FEMA PWs.

Request Contact Information and Meeting with the State and FEMA Public Assistance Program Delivery Manager

This request is made through TDEM.

The Solid Waste Department should immediately request the contact information of the designated FEMA Public Assistance Program Delivery Manager (PDMG) for the disaster. Upon receiving the information, the City should request a meeting with FEMA PDMG. During this meeting the City will:

- Summarize the City's debris removal operations to date;
- Review debris and cost estimates for the City;
- Review any Disaster Specific Guidance (DSG) documents issued by FEMA;
- Examine the City's debris removal plan;
- Provide contact information for all City monitoring firm and debris removal contractors and key personnel; and
- Determine additional information the PDMG will need to generate PWs for the City. In order for FEMA to generate a Category A, debris removal and debris monitoring PW, it will require the following information:
 - Copy of the debris removal contractor contract(s);
 - Copy of the debris monitoring firm contract(s);
 - Information on the procurement process of the debris removal and monitoring contracts;
 - Address (if available) and GPS coordinates for all DMS;
 - Debris volume and costs estimates (using USACE model and damage assessment reports);
 - Monitoring cost estimate (based on budgeted labor hours); and

- Brief debris removal plan overview.

Public Information Post Event

Public information messages provided by Solid Waste and Recycling Division and approved by the City Manager's Office should be issued to various media sources and posted to the City's website and social media sites within the first three days following the debris-generating event. The content of the public information will be to reassure and comfort the public that the City is responding to the event and has activated its monitoring firm and debris removal contractors to begin debris removal activities. (Sample public information messages are located in Appendix E, Public Information Messages.)

3.4 Post-Event Recovery

For the purpose of debris management, the post-event recovery phase is marked by the debris removal contractor collecting and reducing debris from the public ROW.

Concurrent to the commencement of ROW debris removal operations, the City should evaluate the need for contract debris removal on private property, parks and waterways. As noted in the Disaster Recovery Timeline (Figure 3-1), these specialized debris removal operations typically do not begin until roughly 30-60 days following a debris-generating event. Specialized debris removal operations are often governed by DSGs and require some level of FEMA pre-validation. However, if the City determines that there is an immediate and imminent threat to public health and safety, these programs can be expedited.

The following Recovery Checklists are critical in expediting and ensuring proper steps are taken during the debris removal process. The Post-Event Recovery Checklists are also included in Appendix R. The Post-Event Recovery Checklists are subdivided into the following time periods:

- 2 Days – 2 Weeks
- 2 Weeks – 1 Month
- 1 Month – 3 Months
- 3 Months – Project Completion

3.5 Post-Event Recovery Checklist: 2 Days – 2 Weeks

- Open DMS
- Prioritize roads/areas
- Issue public information message regarding segregation of debris
- Begin ROW debris removal
- Perform parks damage assessment
- Begin environmental monitoring program of DMS
- Coordinate with external agencies

Section 3

- Initiate discussions with FEMA
- Obtain FEMA guidance for gated community and private property debris removal

Open Debris Management Sites

DMS will be opened, beginning with sites closest to the most heavily impacted areas of the City. Monitoring towers will be located at the ingress and egress of the DMS. Monitoring towers will be high enough so that tower monitors can verify the contents of the debris removal trucks.

Reduction Methods

- **Chipping and Grinding** – Using this method, vegetative debris is chipped or ground and typically results in a reduction ratio of 4:1. The leftover mulch is either hauled to a final disposal facility or recycled. Chipping and grinding are the City’s first choice for debris reduction.
- **Incineration** – The open burning of vegetative debris requires approval from the Fire Department and the TCEQ due to air quality concerns in this region of the State. The burning of vegetative debris typically results in a reduction ratio of 20:1. The leftover ash may be hauled to a final disposal facility or be incorporated in a land application.
- **Crushing** – The crushing of vegetative debris is the least effective reduction method and results in a reduction ratio of 2:1. Crushing is an appropriate reduction method for C&D debris that cannot be recycled.

Prioritize Roads/Areas

After reviewing damage assessments and the concentration of debris within the City, areas that sustained more extensive damage may need to be prioritized, sub-divided into smaller work zones and recorded on the City’s GIS data. See Appendix H for Zone Maps.

Issue Public Information Message Regarding Segregation of Debris

Issue second public information message regarding segregation of vegetative, C&D and household hazardous waste (HHW).

Begin ROW Debris Removal

The City should allow the debris removal contractors to proceed with curbside collection. Curbside collection entails residents piling their disaster-related debris along the ROW. It is critical that residents segregate their debris in categories such as vegetative, C&D, HHW and white goods. This will help prevent the contamination of debris loads and expedite the cleanup process. To assist the City in an “all-hazards approach” to debris removal efforts, the processes for HHW and white goods debris removal are outlined below.

Household Hazardous Waste Debris Removal

HHW includes gasoline cans, aerosol spray cans, paint, lawn chemicals, batteries, fire extinguishers, fluorescent lamps, household electronics, etc.

DEBRIS COLLECTION AND REMOVAL PLAN

HHW removal is eligible for FEMA reimbursement if the debris is a result of the debris-generating event and removed from publicly maintained property and roadways whose maintenance is the responsibility of the City. HHW should be collected separately and disposed of or recycled at a properly permitted facility. Collection of HHW can be conducted internally or contracted out on a unit rate basis. The following action items are recommended to the City with regards to HHW removal:

- Communicate to City residents the eligibility of HHW following an event. It is important that residents separate HHW from other debris, such as vegetative, C&D, etc, to ensure that HHW does not enter the debris stream at DMS locations.
- Decide whether to establish HHW drop-off sites to augment or replace HHW curbside collection. This helps ensure that HHW is properly disposed. Measures should still be taken jointly by the debris removal contractor and the monitoring firm to identify, segregate and dispose of intermingled HHW at DMS locations.
- Interface with the TCEQ. Describe the HHW collection program and permitted facilities to be used for disposal or recycling.

White Goods Debris Removal

White goods include refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers, etc.

White goods debris removal is eligible for FEMA reimbursement if the debris is a result of the debris-generating event and removed from publicly maintained property and roadways whose maintenance is the responsibility of the City. White goods debris that contains ozone depleting refrigerants, mercury or compressor oils need to have such materials removed by a certified technician before recycling. All state and federal laws should be followed regarding the final disposal of removed refrigerants, mercury, or compressor oils. Collection of white goods can be conducted internally, or contracted out on a unit rate basis. The following action items are recommended to the City with regards to white goods removal:

- Communicate the eligibility of white goods to City residents following an event. It is important that residents separate white goods from other debris to ensure that white goods are not mixed with C&D or vegetative debris during collection.
- Interface with TCEQ. Describe the white goods collection program and permitted facilities to be used for disposal of recovered refrigerants, mercury or compressor oils.

Bagged Vegetative Debris

Disaster related vegetative debris that is placed in garage bags along the ROW for collection will be picked-up by the City's municipal waste collection contractor. The collection of disaster related vegetative debris will follow the same schedule as standard yard trash collection. Following the completion of ROW debris removal, a regression analysis will be used to determine the estimated increase in yard trash collection as compared to previous years. Subsequently, the associated tipping fees related to the increased yard trash because of a disaster event can be determined and presented to FEMA as an associated disaster recovery cost.

Section 3

Bundled Vegetative Debris

Bundled vegetative debris, as described in the City's Garbage and Recycling ordinance can be placed along the ROW for collection by the City's municipal waste collection contractor. The collection of disaster related bundled vegetative debris will follow the same schedule as standard yard trash collection. Following the completion of ROW debris removal, a regression analysis will be used to determine the estimated increase in yard trash collection as compared to previous years. Subsequently, the associated tipping fees related to the increased yard trash because of a disaster event can be determined and presented to FEMA as an associated disaster recovery cost.

Electronic Waste

Electronic waste (e-waste) includes televisions, desktop and laptop computers, computer attachments, stereo equipment, tablets, cell phones, and other electronic devices.

E-waste debris removal is eligible for FEMA reimbursement if the debris is a result of the debris-generating incident and removed from publicly maintained property and roadways whose maintenance is the responsibility of the city.

Older television and computer monitors using a cathode ray tube can contain an average of four pounds of lead. Flat-screen televisions and monitors may have backlighting that contains mercury. These and other electronic devices may also contain lithium-ion batteries, chromium, cadmium, beryllium, nickel, zinc, and brominated flame retardants that must be handled properly and cannot be disposed of in landfills.

Load Tickets

For the debris categories outlined above, pre-printed load tickets will be used as reimbursement documentation for the City. An example of a load ticket is located in Appendix C, Field Documents. The top portion of the ticket will be filled out by the collection monitor at the beginning of each load. The address field will be completed when the debris removal contractor has completed work. The collection monitor will also ensure the debris removal contractor is working within the scope of the contract with the City. The load ticket will then be given to the debris removal vehicle driver to turn in to the disposal monitor upon arrival at the DMS or final disposal site. The disposal monitor will complete the remaining portion of the load ticket. Load tickets may also be processed through automated debris management systems (ADMS) in which case collection monitors will use handheld units to collect the data. The disposal monitor documents the amount of debris collected by making a judgment call reflecting the vehicle's fullness (typically on a percentage basis). The percentage documented for each debris removal vehicle is later applied to the calculated cubic yard capacity of the vehicle to determine the amount of debris collected. This information can also be collected using an ADMS.

Perform Parks Damage Assessment

The Recreation Department and monitoring firm must identify vegetative hazards that require removal within the City parks. Current eligibility criteria include:

- Leaning trees 2 feet in diameter or greater;
- Hanging limbs 2 inches in diameter or greater; and
- Uprooted stumps 2 feet in diameter or greater.

From a FEMA-reimbursement perspective, eligibility criteria for cut work are extremely sensitive to the size and scale of the disaster. When surveying damages, it is extremely important for the City and its monitoring firm and debris removal contractors to be fully cognizant of all DSGs.

Begin Environmental Monitoring Program of DMS

Throughout the duration of the project, data should be collected for use in the remediation and close-out of the DMS. Collected data should be compared to previous data to establish any remediation actions necessary to return the site to its original state. The following items should be included in an environmental monitoring program:

- **Sketches of Site Operations** – During the course of the project, operations at the DMS may expand, condense or shift. Changes to the site should be documented along with the locations of debris reduction activity. The sketches and documentation will assist in determining areas of concern that may need additional sampling and testing during site closure.
- **Documentation of Issues at the Site** – Meticulous records should be kept documenting issues such as petroleum spills, hydraulic spills or the discovery of HHW within debris at the site. This documentation will assist in the remediation if the site.

Coordinate with External Agencies

The City should coordinate with TxDOT, Dallas County and other relevant agencies to ensure all City road segments are moving forward with debris removal operations. Coordination with TxDOT is imperative with regards to TX-161 which passes through the City. TxDOT is responsible for emergency road clearing activities and first pass debris removal on all state and federal roads within the City.

Initiate Discussions with FEMA

It is critical that the Solid Waste and Recycling Division and monitoring firm clearly communicate debris removal plans and operations with FEMA. Clear communication fosters a coordinated effort that enhances the transparency of the operation for auditors and ensures maximum FEMA reimbursement.

Obtain FEMA Guidance for Gated Community and Private Property Debris Removal

In limited circumstances, based on the severity of the incident and whether debris on private property is so widespread that it threatens public health and safety or the economic recovery of the community, FEMA may determine that debris removal from private property is eligible for removal under the Public Assistance Program. Eligibility of gated community and private property debris removal will be determined by FEMA on a case-by-case basis following an incident. Typically, the debris and devastation must be so widespread that debris removal from private property is in the public interest, not merely benefiting an individual or a limited group of individuals.¹⁰

- Remove threats to the health and safety of the community at large;

¹⁰ Public Assistance Program and Policy Guide, Version 4, June 1, 2020, Chapter 7.I.G

Section 3

- Prevent significant damage to public or private property; or
- Assist in the economic recovery and thereby benefit the community-at-large.

In order for private property debris removal to be eligible for reimbursement the City must submit a written request to the FEMA Federal Coordinating Officer before private property debris removal operations begin. The request will include the following information:

- **Immediate threat determination** – The City must provide documentation from the Texas Department of State Health Services, Dallas County Health & Human Services or equivalent public health authority that debris on private property is a threat to public health and safety.
- **Documentation of legal responsibility** – The City must demonstrate that it has the legal authority to enter private property and gated communities and accepts the responsibility to abate all hazards, regardless of whether or not a federal disaster declaration is made.

If private property debris removal is authorized and considered for the City, the following documentation will be required by FEMA:

- **Right-of-Entry and Hold Harmless Agreements** – The City execute signed ROE and Hold Harmless Agreements (HHA) documents with private property owners holding the federal government harmless from any damages caused to private property. A sample ROE/HHA agreement is included in Appendix F. The City may execute ROE and HHA forms prior to a disaster under the condition that the ROE and HHA form do not reference a particular event or disaster number. The sample ROE/HHA provides a stipulation that the property owner will report to the city any insurance settlements paid to the property owner for debris removal on the property that has been performed at government expense. This will aid the City in recouping the costs of debris removal from private property.
- **Photos** – It is in the interest of the City to photograph conditions of private property before and after debris removal is completed. The photos will assist in the verification of address and scope-of-work on the property.
- **Private property debris removal assessment** – The assessment will be a property-specific form to establish the scope of eligible work on the property. The assessment can be in the form of a map or work order, as long as the scope of work can be clearly identified.
- **Documentation of environmental and historic review** – Debris removal efforts on private property must comply with all review requirements under 44 CFR (specifically parts 9, Floodplain Management and Protection of Wetlands, and 10, Environmental Considerations).

3.6 Post-Event Recovery Checklist: 2 Weeks – 1 Month

- Maintain and evaluate ROW cleanup
- Begin ROW stump removal as necessary
- Open additional DMS as necessary
- Continue daily meetings with TDEM and FEMA
- Begin debris removal from private property and gated communities

- Communicate project close-out to residents via public information message.

Maintain and Evaluate ROW Cleanup

Information on debris collection (vegetative, C&D, white goods, E-waste, HHW, etc.) and completion progress will be documented by the monitoring firm and provided to the City on a daily basis. To ensure proper record keeping and reimbursement from all appropriate agencies, it is important for the City to announce the completion of first pass.

Begin ROW Stump Removal as Necessary

Following initial ROW debris removal efforts, the City and monitoring firm may determine a significant threat remains to the City public in the form of hazardous stumps along the ROW. Before ROW stump removal operations commence all applicable DSG criteria or FEMA Publication 104-009-2 for eligibility should be reviewed. FEMA's Recovery Policy for Hazardous Stump Extraction and Removal Eligibility is included in Appendix O. Also, as of the publication of this Plan, FEMA Publication 104-009-2 defines a stump as hazardous if all of the following criteria are met:

- The stump has 50 percent or more of the root-ball exposed;
- The stump is greater than 2 feet or larger in diameter when measured 2 feet from the ground;
- The stump is located on a public ROW; and
- The stump poses an immediate threat to public health and safety.

Open Additional Debris Management Sites as Necessary

If the initial DMS are approaching maximum capacity, additional DMS may need to be prepared. The same procedures taken to open and monitor the initial DMS should be applied to any additional DMS the City may utilize.

Continue Daily Meetings with FEMA

It is critical to maintain strong communication with the City's assigned FEMA representatives. The daily meetings help to ensure maximum coordination and assist to expedite resolving any operational problems that may occur.

Begin Debris Removal from Private Property and Gated Communities

If approved, debris removal from private property and gated communities should begin.

Public Information Post Event Recovery

The project close-out public information message should focus on clarifying any ineligible debris confusion and communicating a debris set-out deadline to minimize illegal dumping. Protocol for leaners/hangers and private property/gated community debris removal programs, if applicable, should be communicated at this time. Depending on the severity of the debris-generating event, project close-out may be further away.

3.7 Post-Event Recovery Checklist: 1 Month – 3 Months

- Maintain and evaluate ROW cleanup – vegetative and C&D
- Begin ROW leaners/hangers program
- Initiate haul-out
- Progress to weekly meetings with the FEMA

Maintain and Evaluate ROW Cleanup – Vegetative and C&D

Information on debris collection and completion progress will be documented by the monitoring firm and provided to the City on a daily basis. During this period, the City should announce the completion of the second pass and establish a deadline for residents to set out debris on the ROW, as well as a deadline for the City's debris removal contractor to complete third pass. In a smaller debris-generating event, the second pass could be announced earlier.

Begin ROW Removal of Hazardous Limbs and Trees

A hazardous limbs and trees program should be initiated, if it is determined that a significant threat remains to the City public in the form of leaning trees and hanging limbs along the ROW. To ensure maximum reimbursement, all threats must be identified and verified against DSG criteria for eligibility prior to the commencement of cut-work. It is important to note the City's debris removal contractor may require lead time to transport specialty vehicles, equipment and labor force to commence leaner/hanger work. Currently FEMA Publication 104-009-2 provides the following guidance on eligibility requirements for hazardous limbs, trees, and stumps.

Tree Removal – A damaged tree is considered hazardous and eligible if the tree has a diameter of 6 inches or greater measured 4.5 feet above ground level, and the tree:

- Has a split trunk;
- Has a broken canopy; or
- Is leaning at an angle greater than 30 degrees.

Broken Limb or Branch Removal – Broken limbs and branches are eligible for removal if they are 2 inches or larger in diameter (measured at the point of break) and pose an immediate threat to the public. An example is a broken limb or branch hanging over improved property or public use areas such as sidewalks, playgrounds or trails. It is important to note that only the minimum cut necessary to remove the hazard is eligible for reimbursement. In addition, FEMA will not fund the removal of broken limbs or branches on private property unless the follow criteria are met:

- The limbs or branches extend over the public ROW;
- The limbs or branches pose an immediate threat; and
- The Applicant removes the hazard from the public ROW (without entering private property).

Unit Rate Tickets

Unit rate tickets will be used as reimbursement documentation for the City's Leaners/Hangers Program. An example of a unit rate ticket is located in Appendix C, Field Documents. To ensure

DEBRIS COLLECTION AND REMOVAL PLAN

maximum reimbursement, debris monitors will use GPS devices to document the GPS coordinates of tree or hanger removals and take digital photos of the work done. The photos taken before the cut should show how the hanging limb or branch endangers a public area.

Initiate Haul-Out

At this point in the post-event recovery process, reduced debris from DMS will be hauled to a final disposal site or recycled through one of the markets listed in Table 3-2. Generally for final disposal purposes, the most environmentally responsible and cost-effective method is for the City to recycle reduced debris. Any remaining reduced debris that cannot be recycled should be disposed of at permitted landfills with consideration to the cost structure of associated tipping fees. See Table 3-2 for potential final disposal sites.

Table 3-2
Potential Final Disposal Landfills

| Name | Location | *Remaining Cubic Yards | Traffic Circulation |
|-----------------------------|-------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------|
| Grand Prairie Landfill | 1102 MacArthur Blvd. Grand Prairie, TX 75053 (972) 237-8151 | 10,022,675 | Easily accessible from MacArthur Blvd. No Traffic circulation issues. |
| Arlington Sanitary Landfill | 800 Mosier Valley Rd Euless, TX 76040 (817) 354-2300 | 44,008,680 | Easily accessible from Mosier Valley Road. No Traffic circulation issues. |
| Hunter Ferrell Landfill | 200 W. Hunter Ferrell Rd., Irving, TX 75060 (972) 264-3772 | 11,514,499 | Easily accessible from W. Hunter Ferrell Rd. No Traffic circulation issues. |

**Remaining cubic yard information derived from the, “Municipal Solid Waste in Texas, A Year in Review, FY 2021 Data Summary and Analysis” Report published by the Texas Commission on Environmental Quality.*

It is important that the City and monitoring firm ensure the debris removal contractor attains proper disposal tipping fee information. Appendix C contains a sample haul-out ticket that will be used by the monitoring firm as reimbursement documentation for the City.

Progress to Weekly Meetings with the FEMA

Although strong communication with the City’s assigned FEMA representatives is still important, at this point in the debris removal operation meetings can move to a weekly timeframe. The weekly meetings will still be critical in ensuring maximum coordination.

3.8 Recovery Checklist: 3 Months – Project Completion

- Complete all debris recovery activities
- Identify ineligible debris on ROW
- Complete the disposal of reduced debris
- Close-out and remediate DMS

Section 3

- Conduct project close-out meetings with FEMA and external agencies

Complete all Debris Recovery Activities

The City's debris removal contractor will identify and remove all remaining eligible debris piles.

Identify Ineligible Debris on ROW

Once ineligible debris on the ROW is identified, the City should proceed in one of two ways:

- Hold individual homeowners responsible for the disposal of ineligible debris; or
- Utilize internal equipment for disposal of the ineligible debris.
- Task the City debris removal contractor with the removal of ineligible debris and incur the associated cost. This debris should be hauled directly to a final disposal landfill or transfer station to reduce associated handling costs.

Complete the Disposal of Reduced Debris

Before project closure, remaining reduced debris at DMS should be recycled through one of the markets listed in Table 3-2 or hauled to a local landfill for final disposal (see Table 3-3).

Close-Out and Remediate Debris Management Sites

TCEQ must be contacted before final closure of the DMS to ensure all required actions are taken. Generally DMS locations must be returned to their original environmental state. Restoration of the DMS includes removing all remnants of operations and the remediation of any contamination that may have occurred during operations. A final sample of environmental data should be collected to ensure the site is returned to its original state. Final closure of the DMS will require written notice to TCEQ. The results of any required environmental samples should be included with the written notice.

Conduct Project Close-Out Meetings with FEMA and External Agencies

Prior to the project close-out meeting, the City will receive detailed data from the monitoring firm regarding the debris removal operations within the City. The City in conjunction with the monitoring firm should compile all contractor invoices, contracts and other documentation supporting debris removal operations in preparation of the project close-out meeting.

Section 4

ENVIRONMENTAL CONSIDERATIONS AND OTHER REGULATORY REQUIREMENTS

The information described in this section identify the regulatory requirements and guidance for local governments engaging in debris cleanup operations. The City should review the regulatory information on an annual basis not only to familiarize themselves with the governing statutes, but to also identify any changes to the regulations and guidelines.

4.1 Federal Regulations and Guidance

4.1.1 National Environmental Policy Act (NEPA)

NEPA regulations can be found in CFR Parts 1500 – 1508. The act requires that FEMA consider the environmental impacts of proposed actions and reasonable alternatives to those actions. The U.S. Department of Homeland Security publishes NEPA requirements and provides a decision-making process that FEMA must follow to fund a project.

4.1.2 Resource Conservation and Recovery Act (RCRA)

RCRA governs the disposal of solid waste and hazardous waste. The act also provides planners with greater awareness of environmental considerations and regulations for dealing with disaster debris. Additional information about RCRA is at <http://www.epa.gov/rcra>.

4.1.3 National Historic Preservation Act (NHPA)

In conducting debris operations, the City must consider how such operations will affect historic properties. Historic properties include buildings or groups of buildings, structures, objects, landscapes, archeological sites as well as properties listed in or eligible for inclusion in the National Register of Historic Places. Section 106 of the NHPA requires FEMA to consider how a project might affect such properties.

4.1.4 Endangered Species Act

Projects must be examined to ensure they will not jeopardize the continued existence of any threatened or endangered species (listed species) and critical habitats. FEMA must consult with the U.S. Fish and Wildlife Service and the NOAA Fisheries to ensure the conservation of listed species.

4.1.5 Clean Water Act (CWA)

The Clean Water Act provides regulations for the discharges of pollutants in the waters of the United States. According to the CWA it is unlawful to discharge any pollutant from a specific source into navigable waters without the appropriate CWA permits from the U.S. Army Corps of Engineers or State Regulatory Agency.

Section 4

4.1.6 Clean Air Act (CAA)

The CAA seeks to protect air quality through the reduction of smog and atmospheric pollution. Air compliance measures in debris management operations may include air monitoring and dust abatement.

4.1.7 National Emission Standard for Hazardous Air Pollutants (NESHAP)

Provides standards for demolition of structures containing asbestos as well as the disposal and reporting of asbestos. The Texas DSHS Asbestos Program is tasked with enforcing asbestos regulations in the State of Texas.

4.1.8 Executive Order 11990, Protection of Wetlands

Executive Order 11990, Protection of Wetlands, requires federal agencies to minimize or avoid activity that adversely affects wetlands and encourage the preservation and enhancement of the beneficial functions of wetlands.

4.1.9 Executive Order 12898, Environmental Justice

Executive Order 12898 requires federal agencies to identify and address any disproportionately high and adverse human health or environmental effects on minority and low-income populations as a result of their actions.

4.1.10 EPA Publication EPA A530-K-08-001, Planning for Natural Disaster Debris

The Planning for Natural Disaster Debris publication discusses management of debris from natural disasters such as hurricanes, earthquakes, tornadoes, floods, wildfires, and winter storms. The document is designed to assist planners in the beginning stages of the planning process or to help a planner revise an existing Debris Management Plan. It provides planners with greater awareness of environmental protectiveness when dealing with disaster debris.

Under the current federal system, FEMA coordinates response and recovery efforts for all presidential declared disasters. FEMA provides guidance documents for local governments regarding disaster planning and response.

4.1.11 FEMA Publication FP 104-009-2 – PA Program and Policy Guide 2020

The Public Assistance Program and Policy Guide overviews FEMA PA Program protocols immediately following a disaster. The PA Program provides the basis for the federal/local cost-sharing program. This document describes entities eligible for reimbursement under the PA Program, documentation necessary to ensure reimbursement, and special considerations about which local governments should be aware to maximize eligible activities.

ENVIRONMENTAL CONSIDERATIONS AND OTHER REGULATORY REQUIREMENTS

An electronic version of FEMA Publication 104-009-2 is available at <http://www.fema.gov/public-assistance-policy-and-guidance>

4.1.12 Disaster-Specific Guidance

DSG is a policy statement issued in response to a specific post-event situation or need in a state or region. Each DSG is issued a number and is generally referred to along with its numerical identification.

These guidance documents typically relate to authorization of private property clean-up, clean-up of stumps and payment for that, or notification of large projects. Staff should be aware of any new DSG issued by FEMA following an event.

4.2 State of Texas Regulatory and Technical Assistance

4.2.1 Texas Solid Waste Disposal Act

Texas Health and Safety Code, Title 5, Subtitle B, Chapter 361

The Texas Solid Waste Disposal Act outlines state regulations regarding the management of solid waste including accounting for hazardous wastes that are generated.

4.2.2 Texas Commission on Environmental Quality (TCEQ)

The TCEQ issues emergency permits for debris incineration and advice and assistance for debris disposal. Assistance is also provided to local jurisdictions on the potential environmental impacts of debris removal and disposal operations.

4.2.3 Texas Department of State Health Services (DSHS)

DSHS provides assistance regarding health and safety issues in debris removal and disposal operations. The Asbestos Program under DSHS is tasked with enforcing asbestos regulations in the State of Texas.

4.2.4 Texas Historical Commission (THC)

The THC is responsible for review of any historical issues pursuant to Title 36 of the Code of Federal Regulations (36 CFR) Part 800.12. They also conduct a review of post-disaster DMS plan applications.

4.2.5 Texas Department of Transportation (TxDOT)

TxDOT is responsible for the design, construction, and maintenance of the state highway system. TxDOT acts as the lead agency for emergency roadway debris clearance, removal, and disposal efforts along state and federal highways.

4.2.6 Texas Animal Health Commission (TAHC)

The TAHC provides assistance to local jurisdictions regarding the disposition of dead animals following a disaster.

4.3 Other Relevant Regulations

The two primary directives developed by the federal government that provide for the authorization and use of federal funds to reimburse local governments for disaster-related expenses are the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the CFR – Title 44 Emergency Management and Assistance, and the SRIA of 2013. A brief summary of these laws is provided below.

4.3.1 Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)

The Stafford Act provides the authorization for the PA Program. The fundamental provisions of this act are as follows:

- Assigns FEMA the authority to administer federal disaster assistance;
- Defines the extent of coverage and eligibility criteria of the major disaster assistance programs;
- Authorizes grants to the states; and
- Defines the minimum federal cost-sharing levels.

4.3.2 Code of Federal Regulations (CFR): Title 44 – Emergency Management and Assistance

Procedural requirements for the PA Program operations are provided by 44 CFR. These regulations are designed to implement a statute based upon FEMA’s interpretation of the Stafford Act. They govern the PA Program and outline program procedures, eligibility, and funding.

4.3.3 Title 2 CFR Part 200

Title 2 CFR Part 200 establishes regulations regarding administrative requirements, cost principles, and audit requirements.

4.3.4 Sandy Recovery Improvement Act (SRIA) of 2013

The law authorizes changes to the way FEMA may deliver federal disaster assistance to survivors. Key provisions of the act are as follows:

- Provides substantially greater flexibility in use of federal funds and less administrative burden if applicants accept grants based on fixed capped estimates, which may be provided by applicants’ licensed engineer and validated by independent expert panel.

ENVIRONMENTAL CONSIDERATIONS AND OTHER REGULATORY REQUIREMENTS

- Offers a package of cost share adjustments, reimbursement for force account, and retention of program from recycling to speed debris removal and encourage pre-disaster debris planning.
- Allows PA applicants for all disasters declared on or after October 30, 2012 an option to request binding arbitration for certain projects with an amount in dispute of over \$1 million after first appeal, instead of pursuing a second appeal under FEMA's PA Program.

4.3.5 The Disaster Recovery Reform Act of 2018 (DRRA)

The DRRA was signed into law in October 2018. The reforms made by this law acknowledge the shared responsibility for disaster response and recovery, aim to reduce the complexity of FEMA, and build the nation's capacity for the next catastrophic event.

The law amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act through 56 distinct provisions that direct changes to FEMA policies and regulations. Key provisions of the DRRA related to debris management functions include the following:

Section 1215 – Management Costs

Expands the definition of management costs to include both direct and indirect administrative expenses by the state, local, tribal, or territorial (SLTT) government. It also requires FEMA to reimburse PA and Hazard Mitigation Grant Program (HMGP) management costs by the following amounts:

- PA – up to 12% of the total award amount
 - 7% for recipient
 - 5% for subrecipient
- HMGP – up to 15% of the total award amount
 - 10% for recipient
 - 5% for subrecipient

Section 1232 – Disaster Relief Hazards (Local Impact and Multiple Recent Disasters)

Direct the FEMA Administrator to give greater consideration to local impacts when the agency provides its recommendation to the President on whether to issue a Major Disaster Declaration. PA regulatory factors include estimated cost of assistance, localized impacts, insurance coverage in force, hazard mitigation, recent multiple disasters, and other federal assistance programs.

Section 1234 – National Public Infrastructure Pre-Disaster Hazard Mitigation

Authorizes the National Public Infrastructure Pre-Disaster Mitigation fund, which will be funded through the Disaster Relief Fund as a 6 percent set aside from estimated disaster grant expenditures. This allows for a greater investment in mitigation before a disaster. This new program is named Building Resilient Infrastructure and Communities (BRIC). BRIC has replaced the Pre-Disaster Mitigation program.

Section 4

Section 1239 – Public Assistance Declaration Factors (Cost of Assistance Estimates)

Directs FEMA to reconsider all factors used to evaluate a request for a Major Disaster Declaration for PA, specifically the estimated cost of assistance (i.e., the per capita indicator).

Section 1235 – Additional Mitigation Activities (a – b)

- a. **Resilience** – Ensures HMGP funding increases resilience to future damage, hardship, loss, or suffering.
- b. **PA Codes and Standards** – Authorizes FEMA to provide Public Assistance funding to replace and restore disaster-damaged facilities to the latest published editions of relevant consensus-based codes and standards to ensure that facilities are restored in a manner that allows them to be resilient.

Section 1241 – Post-Disaster Building Safety Assessment

Directs FEMA to develop guidance for building experts to use when they evaluate structures for safety and habitability after a disaster.

In November 2019, FEMA published the [Post-disaster Building Safety Evaluation Guidance](#).

Section 1225 – Audit of Contracts

Prohibits FEMA from providing reimbursement to any state, local, tribal, or territorial government, or private nonprofit for activities made pursuant to a contract that purports to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General.

Section 1216 Section (c) – Statute of Limitations

Changes the beginning of the statute of limitations for recoupment of PA from state or local governments to run from the close-out of individual projects.

Section 5

Plan Maintenance

5.1 Plan Maintenance

For this plan to maintain viability, the plan should be updated annually, and personnel should be trained on the content prior to a disaster. Since FEMA updates debris operations program guidance throughout the year based on lessons learned from recent disasters, it is important to review the most recent guidance and incorporate those changes into the plan. This section explains the actions the City will take to ensure it is current and relevant.

5.2 Plan Review and Approval

The City will conduct an annual review of the DDMP. The plan will be updated based on organizational changes, new policies and guidance, and lessons learned from actual debris incidents. Changes made to the plan will be noted on a plan changes log as needed.

5.3 Training for Personnel

Personnel must be trained to ensure they are prepared to fulfill their role in a debris-generating emergency. The City will institute the following training for personnel with responsibilities in debris management:

General

- Personnel will be trained in their specific roles and responsibilities.
- Personnel will be trained in the ICS to the appropriate level for their position.
- All personnel with debris management responsibilities will participate in a briefing on safety policies and procedures.
- Personnel with responsibility for preparing documentation for reimbursement will receive training on the FEMA PA Program.
- Personnel operating equipment will be trained to operate any equipment they are responsible for competently and safely.

Debris Managers

- Debris Managers should be trained in the regulatory requirements for debris operations, including:
 - Health and safety
 - Environmental and historical preservation
 - Procurement

Section 5

Federal disaster grant programs

Considerations for individuals with disabilities and access and functional needs

Damage assessment for debris

Finance and Administration

- Finance and Administration staff will be trained in regulatory requirements for debris operations including:

- Procurement

- Federal disaster grant program

- Documentation needed for reimbursement of expenses.

5.4 Exercises

Exercises are essential to maintaining readiness and in determining the effectiveness of plans, personnel, and resources in responding to a debris-generating incident. Workshops and exercises will be conducted periodically to test the ability of the City to coordinate resources for debris operations.

Following exercises, an after-action report will be developed to document strengths and areas needing improvement. An improvement plan will be developed to list corrective actions, identify individuals or agencies responsible for completing the corrective actions, and establish a timeline for completion.